

			- £ -	•
		• 1		
	•			
No. of the second				
				<i>G</i>
				•
	8			
			•	
		1		

A. A.								
•								
4	•			-				
								1
					•			
		4.						
							•	
	44							
	v.							
4								
N. A. Carlotte								
y &	•							
			2					
5/1-								

¥				
	•			

# GARDENERS' CHRONICLE

OF ANABARIOA



### **BURNETT BROTHERS**

#### BURNETT'S SPECIAL LAWN GRASS MIXTURE

The above mixture is made from our own formula, and composed of grasses specially adapted for the purpose of producing turf which retains its rich green color and velvety appearance throughout the entire Summer and Fall. In making up this high grade mixture we are careful to use only the very finest quality of all the most desirable dwarf evergreen, recleaned grasses, free from chaff and weeds, which thrive well on any soil, thus ensuring a beautiful and permanent lawn.

Price: pk., \$1.75; bushel (20 lbs.), \$6.00.

WE MAKE A SPECIALTY OF GRASS SEED MIXTURES FOR ALL SITUATIONS

#### MISCELLANEOUS LAWN SUPPLIES

COLDWELL'S "DEMOUNT-ABLE" CUTTER UNIT HORSE LAWN MOWER

COLDWELL'S HIGH WHEEL IMPERIAL LAWN MOWER

GEAR ROLLER MOWER

Ler Borders and Golf Greens.

TOWNSEND'S VICTORY BALL-BEARING LAWN MOWER

COLDWELL'S MOTOR LAWN MOWER

APOLLO LAWN SWEEPER

BURNETT'S LAWN DRESSING HORSE BOOTS

COLDWELL'S

LAWN TRIMMER THE CAPITOL

LAWN TRIMMER and EDGER

BURNETT BROS.' "HUDSON-FULTON" BRAND GARDEN HOSE

BURNETT BROS.'
NONKINKABLE HOSE "REVERO" THE MODERN GREENHOUSE HOSE LAWN SPRINKLERS LAWN RAKES BORDER SHEARS EDGING KNIVES, ETC.

We carry a full supply of Lawn Requisites. Write for our Midsummer List of Pot Grown Strawberry Plants and Perennial Flower Seeds, Etc.

### BURNETT BROS., Seedsmen, 98 Chambers St., New York

Telephone, BARCLAY 6138

#### A Range of Greenhouses on Top of a New York Store 200 Feet Above the Street

F AR above the hurly burly of noisy, bustling New York, Mr. C. C. Treple has a range of greenhouses on top of Bloomingdale Bros,' store at Fifty-ninth Street.

Eighteen years ago we built the first houses and have continued adding to them. Two, we just completed, 26 feet and 52 feet long.

We consider this a pretty good recommendation for our construction—eighteen years of hard usage. There is probably not another greenhouse in the country that has had the number of people visit it. Today, outside of minor repairs, the original houses are as good as the day they were built.

houses are as good as the day they were built.

Here the flowers are grown that are sold in the flower shop on the ground floor. This flower garden on the roof gives people a chance to see how flowers and plants are grown. It also gives a prospective purchaser of a greenhouse a chance to see a greenhouse built in its entirety. It shows you the superstructure, plant benches, and heating apparatus.

We tell you all this just to show you the variety of greenhouse building problems we are continually solving successfully.

Besides running this shop and range of houses, Mr. Treple also runs the flower store at Gimbel Bros., 33rd St. and 6th Ave., New York, and has recently opened a new one at 89th St. and

We hope that when you are ready to build, you will think of us as the builders. When you are ready to talk it over,—say when and where and we'll be there.

## ord & Burnham Co.

SALES OFFICES

NEW YORK BOSTON PHILADELPHIA CHICAGO 42nd St. Bldg. Tremont Bldg. Franklin Bank Eldg. Rookery Bldg. ROCHESTER CLEVELAND TORONTO Granite Bldg, Swetland Bldg, 12 Queen Street, East FACTORIES: Irvington, N. Y. Des Plaines, Ill.



Glimpse in one of the houses a couple of days before Easter.



THORBURN salesmen are on the road now booking orders on Bulbs for Fall delivery.

You will receive a postal from us a day or so before one calls.

> If you have changed your address recently, please drop us a postal.

I. M. Thorburn & Co. 53 Barclay St., New York

#### 

#### THE ONE BEST PINK CANNA

Mrs. Alfred F. Conard

T'S a wondrous salmon pink that fades into beautiful pink tones. It blooms early and keeps at it. When and keeps at it. When spent, the blooms free themselves from the stalk. Its height is average. We originated this Canna. It has all the stamina and backbone in it that are characteristic of the Cannas Mr. Wintzer develops. We have an exceptionally fine lot of fat clumps, such as will look good to the most critical customers. You can depend on our not sending you any culls.

If you want Conard,



Blanche Wintzer, or whatever kinds; if we should be sold out on our fine Swastika standard stock we won't send anything. That's the way we do business. We ship our Cannas

in any quantities, direct from our storage shelves and not in already packed, boxed lots.

PRICES

 MRS. A. F. CONARD, 4 feet, Salmon
 \$2.50
 \$12.00
 \$100.00

 METEOR (Wintzer's), 5 reet; the Best
 3.00
 20.00
 175.00

The Conard & Jones Co., West Grove, Pa. SWASTIKA BRAND CANNAS

. В починания менения приничения приничения приничения приничения приничения приничения приничения приничения при

### Pot-Grown Strawberry Plants

New and Standard Varieties

Any Quantity

Prices Right

#### **READY JUNE 15**

Send your order to-day

### W. F. McCORD COMPANY

Nurserymen and Seedsmen

TARRYTOWN, N. Y.

### Imported Orchids for 1914

Cattleva Trianae

- Mossiae
- labata
- Percivalliana
- Schroderae
- Gigas
- Gaskelliana

Laelia purpurata Oncidium Varicosum Rogersii

and many others.

Write for Special List.

### JOSEPH MANDA

WEST ORANGE, N. J.

. Боличинальный выполнения полительного полительного контрольного полительного полительного полительного полител

### Gladiolus for Forcing

### AMERICA AND PRINCEPS



An exceptional offer of well ripened extra large high crown bulbs, 7 inches and over in circumference.

America, 50c. doz.; \$3.50 per 100 Princeps, 75c. doz.; \$5.00 per 100

#### WEEBER and DON

Seed Merchants and Growers 114 Chambers Street NEW YORK On larger properties, nothing has been more notable than the tendency to plant

#### Meehans' Mallow Marvels

in groups of a hundred or more of each of the several colors; securing in each a profusion of immense blooms, in glorious shades of red; or soft pinks or white.

Suitable for late planting.

Pink, \$35.00 per hundred White, \$35.00 per hundred Red, \$50.00 per hundred

Thomas Meehan & Sons
Box 65 Germantown, Phila.



### **Before Placing Your Orders**

for ROSE BUSHES, EVERGREENS, RHODODENDRONS, AZALEAS, ETC., pay us a visit and let us figure with you on your wants. We carry a complete line of all kinds of nursery stock.

#### Our Seed Department

is fully equipped to quote you on the highest grade tested seeds. If you want the best, we supply it.

Let us send you a copy of our 1914 catalogue.

The Mac Niff Horticultural Co. <sup>56</sup> Vesey Street New York

### Julius Roehrs Company Nurserymen and Florists

Headquarters for Orchids, Palms, Stove and Greenhouse Plants, Bay Trees and Box Trees, Laurus Cerasus, Aucubas, Cyclamen, Begonia Lorraine and Cincinnati, Evergreens, Decideous Trees and Shrubs.

RUTHERFORD, NEW JERSEY

### ORCHIDS

Freshly Imported

We have received and unpacked the following in fine condition: Cattleyas — Percivaliana, Gaskelliana, Speciosissima; Dendrobiums—Formosum, Nobile, Densiflorum, Schuitzii (novelty); Vandas—Coerulea, Batemannii, Imshootiana, Luzonica (novelty); Phalaenopsis—Amabilis, Schilleriana and Spothoglottis plicata. Many more to arrive.

Write for special list No. 55.

LAGER & HURRELL, Summit, N. J.

### COMPETENT GARDENERS

**q** The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

**NEW YORK CITY** 

#### Tree Owners and Tree Lovers

Will find much to interest and instruct

### "TREE TALK"

Devoted to Arboriculture and Forestry.

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage.

Published quarterly by

#### THE FROST & BARTLETT COMPANY

26 Cortlandt St.

(Suite 212)

**NEW YORK** 

### THE GUIDE TO NATURE

EDWARD F. BIGELOW, Managing Editor

A Profusely Illustrated Monthly Magazine Devoted to Commonplace Nature with Uncommon Interest.

Subscription, \$1.00 per Year Single or Sample Copy, 10c.

Canadian Postage, 24c.; Foreign Postage, 36c.

Published by The Agassiz Association, ARCADIA SOUND BEACH, CONN.

Make all Checks and Money Orders payable to The Agassiz Association.

# Kennedy & Hunter SEEDSMEN

Incorporated 1911
Andrew K. Kennedy

Andrew K. Kennedy PRESIDENT AND TREASURER

Our new Musk Melon "CAROLINE CLARK" the best melon in the world—25 seeds 25 cents

156 West 34th Street

One block from Penna. Station

NEW YORK

"ONLY THE BEST"

# A Mum Buying Hint

OOK over your benches now and see if you have figured right on the quantity you need. The chances are you will need some to fill out with. That being the case, send along your order.

You know, there isn't a bit of doubt about Satisfaction Plants from Cromwell Gardens, giving satisfaction.

Another thing—we don't substitute without first getting your permission.

In looking over our thousands and thousands of plants this morning, it strikes me we never had so choice a lot in the better really worth while tested kinds.

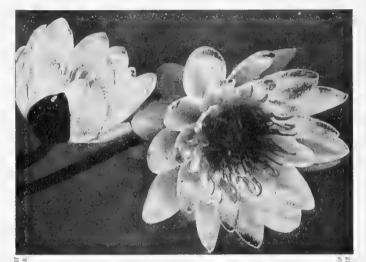
And while you are ordering, let us know how many Poinsettias you will want and we will ship them to you in paper pots, later on when the plants are good and husky.

From 21/4-inch pots, \$1.50 a doz.; \$10 per 100.

AN PIERSON INC.

CROMWELL CARDENS

CROMWELL CONN



#### DREER'S WATER LILIES

Hardy and Tropical

Largest collection in America, embracing many wonderful hybrids especially suited for growing in fountains, pools and ponds.

#### DREER'S GARDEN BOOK FOR 1914

contains the largest list of Aquatic plants offered, also beautiful illustrations of many varieties and cultural notes written by experts. Sent free if you mention this publication.

We also offer the advice of our expert concerning plans for pords and selection of varieties.

HENRY A. DREER 714-16 Chestnut St., Philadelphia



JOHN DAVEY

Father of Tree Surger

THE NEXT STORM MAY DO THIS TO YOUR FINEST TREES Your trees may appear strong and healthy and yet be so unsound that the next storm will snap them off like the one shown here. If your trees

need no attention you want to know it. If they do, you ought to know it. If you want real Tree Surgery, it must be Davey Tree Surgery. Expert examinations without charge. Representatives with beautiful free book and letters from estate owners to whom our examinations have been a revelation.

Write today

#### THE DAVEY TREE EXPERT CO. Inc.

443 Elm Street, Kent, Ohio

Brancas - with telephone connectors New York, Preso lphia, Chicago, Montreal, San Francisco.



### The Contents---May, 1914

A Useful Collection of Spray Orchids By Wm. Turner	7	Spring Flower Show for New York in 1915 .  Among the Gardeners	
How to Produce Perfect Lawns	8	A Record Unique—The Lenox Horticultural	
Practice with Science By Wm. H. Waite	10	Society	
Conserving the Woodlands	11	A Horticultural Investigation	19
The Essential Parts of a Flower	11	An Interesting Exhibit	19
Fine Specimen of Cattleya Mossiae		Schedule, American Sweet Pea Society Show .	20
By Wm. H. Duckham	12	Schedule, June Show, Newport, R. I	21
	12	New Appointments at Cornell University .	
Don't! Don't! Don't!	12	The Beautiful Columbines	
An Indispensable Farm Commodity By Karl Langbeck	12	Pruning for Fruit . By V. R. Gardner	
The Modernist Garden	13	Queries and Answers	24
Cultural Notes on the Tomato	10	National Associations	25
By Ja es S. Bache	14	Local Societies	25
Means of Utilizing Birds in Horticulture		Gardener's Diary	26
Editorial		Westchester & Fairfield Horticultural Society .	26
The Glory of the Garden		New Bedford Horticultural Society	26
By Rudyard Kipling	16	New Jersey Floricultural Society	27
The Important Man	16	Connecticut Horticultural Society	27
National Association Notes		The Horticultural Society of New York	27
The Service Bureau	17	The American Paeony Society	27

### Gladiolus Liliums Montbretias TO PLANT NOW

#### GLADIOLUS

AMERICA A splendid light pink 35c, per doz.; \$2.50 per 100.

ATTRACTION Crimson white throat. 75c, per doz.; \$5.00 per 100.

BARON HULOT A good blue, planted or staged with Sulphur King, the color harmony is very effective. \$1.50 per doz.; \$10.00 per 100.

BLANCHE One of the best large flowered white varieties with faint marks. \$3.00 per doz.; \$20.00 per 100.

CONTRAST - Searlet white throat, well man,ed. \$5.00 per doz.; \$35.00

DAWN (GROFFS) A peach blossom pink with creamy yellow blotch in the threat; one of the rest newer varieties. \$6.00 per doz.; \$50.00 per 100.

I. S. HENDRICKSON -Large flowered pink and white variegated \$1.50 per doz.; \$10.00 per 100.

MRS. FRANCIS KING—A lilliant flamingo pink blazed with vermillion red, large flowers borne on long spikes. 50c. per doz.; \$4.00 per 100.

MRS. FRANK PENDLETON, JR. -Ore of the most evquisitely colored and formed gladiolus, delicate flush salmon pink, three lower petals blotched rich maroon. \$4.50 per doz.; \$35.00 per 100.

PEACE A white variety with pleasing lilac feathering; large size. \$2.00 per doz.; \$15.00 per 100.

SULPHUR KING One of the best pub yellows \$2.00 per doz: \$15.00 per 100.

WAR -Flowers of gigantic proportions; rich ox blood red, shaded crimson black. \$12.00 per ωσz.

#### LILIUMS

(Hardy)

(Hardy)

SPECIOSUM MAGNIFICUM 'This Speciesum Lily is an improvement on the varieties Rubrum. Rossian, or Melpomene. A few bulbs planted in your garden this Spring will give you a splendid Summer display. 8 to 9 inch bulbs, \$1.00 per doz.; \$8.00 per 100; 9 to 11 inch bulbs, \$2.25 per doz.; \$15.00 per loo; 11 to 13 inch bulbs, \$3.50 per doz.; \$25.00 per 100.

SPECIOSUM ALBUM -A white counterpart to the beautiful Speciosum Magnificum, and may be use, in a spinder manner. 8 to 9 inch bulbs, \$2.25 per doz.; \$15.00 per 100; 9 to 11 inch bulbs, \$3.50 per doz.; \$25.00 per 100.

AURATUM—The Golden Rayed Lift of Japan. Flowers pure white, thickly studded with crimson spots, while through the centre of each petal runs a golden band. May be used in similar manner to the two preceding Flimms. 8 to 9 inch bulbs, \$1.00 per doz.; \$8.00 per 100; 9 to 11 inch bulbs, \$2.25 per doz.; \$15.00 per 100; 11 to 13 inch bulbs, \$3.50 per doz.; \$25.00 per 100; 11 to 13 inch bulbs, \$3.50 per doz.; \$25.00 per 100.

#### MONTBRETIAS

FIRE KING A splendid scallet rid, compares favorably with the newer and more expensive sorts. \$2.50 per 100.

SEORGE DAVIDSON -A pale orange yellow, very free flowering; among the first to flower. \$3.50 per 100.

GERMANIA—A rich glowing orange scarlet, with a red throat. \$3.50 per 100.

GOLDEN WEST-One of the best rich pure golden yellows, without least spot or shade. \$22.50 per 100.

MARTAGON-Flowers reflexed, similar to the Martagon lily. \$3.50

PROMETHEUS A very large flowered sort, color ctmson ring around the edge \$60.00 per 100. sort, color deep orange with a

30-32 BARCLAY ST. **NEW YORK CITY** 

### GARDENERS' CHRONICLE

#### OF AMERICA

DEVOTED TO THE SCIENCE OF FLORICULTURE AND HORTICULTURE

ADOPTED AS THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

Vol. XVIII.

MAY, 1914.

No. 1.

### A Useful Collection of Spray Orchids

By Wm. Turner

Is there any flowering plant more graceful or effective than a collection of spray orchids? Indeed, it is the spray orchid that gives the finished appearance to any orchid group, particularly when the short stemmed kinds are used liberally as companions to the tall, stately sprays. When we realize the rich effect that can be produced with a collection of those gems, it is no small wonder they have jumped to the foremost rank in recent years both as a choice cut flower, and for decorative effects. None can deny as to their keeping qualities, for they have no equal and as for their colors, combinations and gracefulness, they are peerless. True, many of the varieties are apt to wear out sooner than the cattlevas. and no wonder, when we stop to consider the strain many of those plants must be under in producing those terrific spikes. I dare say there are many that have looked upon those little plants with wonderment, seeing them produce spikes three and four feet in length. Still. with good treatment and a good season of rest, they may be kept in a healthy, vigorous condition for several vears. I presume one of the best known species is Oncidium Varicosum, and its variety Rogersii. In fact, it is Rogersii that has given this Oncidium priority over many of the others as the individual flowers are much larger and of more substance. In their season of growth they will thrive admirably in the cool end of the Cattleva house and if hung somewhere near the glass. They seem to appreciate such treatment. Nor will they thrive if placed in too large receptacles. Dendrobium Phalaenopsis Schroderiana makes an admirable companion to Varicosum, coming in as they do around the same time, although I do not think it wise to handle this variety unless more heat can be given than just merely Cattleya house temperature. While one may see them growing in such a temperature they must be grown in a warmer, closer atmosphere to produce strong, vigorous growths. Unquestionably D. Phalaenopsis when well grown is one of our very best and most useful orchids, either for cut sprays or plant decoration; and what a combination of colors there are; one may look over a batch and hardly find two alike. This orchid, like many others, keep in as small a receptacle as possible, which is the key-note to success to a certain extent. Neither do they care to have their roots tampered with more than is absolutely necessary. But whoever has a house adapted for growing this species which should be at least 5 or more degrees over a Cattleva house temperature will have one of the most useful spray orchids that I am acquainted with.

Another Mexican fall or early winter flowering variety is worthy of note for its free flowering qualities and

massive spikes. Although better results may be had by growing this species in a trifle lower temperature and particularly so during their resting period, (). Tigrinum, which is well known among all lovers of the orchid family and may be relied on to make an imposing display during their season of flowering, I dare say I am not over-stepping the mark when I say Onc. splendidum stands out pre-eminently as one of the very best for midwinter display, their stately spikes and massive, bold flowers are apt to cause admiration during the winter months. This Guatemalean variety will respond readily to more heat than many of the Oncidium family, at the same time with care and good judgment can be grown very successfully in a Cattleya house temperature providing they do not receive too much water at their roots. By the way, is their another orchid that will resent over-



ONCLULATIVE TRUE RELATED

watering more so than splendidum? Why, it is not an uncommon occurrence for a batch of this King of Oncidium to go at times for weeks without any water applied to the roots, in fact they seem to revel with such treatment providing the atmospheric moisture is agreeable to them. Therefore it is not necessary to hear the complaint which at times is the case in regard to the young growths rotting off. Even though grown with the Cattleyas, when such does occur, a safe remedy to eradicate the trouble is considerably less water at the roots. It is surprising the amount of flower spikes a healthy batch of this variety will produce.

Like all other valuable plants, usually they have their enemies in the way of insect pests, slugs are extremely partial to the young succulent spikes just as they are forming at the base of the new bulb, therefore it is well to keep a sharp lookout for these enemies for some time, before they commence to produce their flower spikes, otherwise serious damage will be done. With a poor crop of flowers, no matter how little damage seemingly has been done, we find when a slug has once started into the young spike it, at its best, will be a cripple and of little or no value. I dare say, every orchid grower has his favorite methods in trapping them, with lettuce leaves laid on the pots, carrots cut in halves, or potatoes laid on the pots, cutting a hollow into them and turning the hollow towards the peat. They often may be caught. It seems almost increditable at times that those tiny slugs, not much larger than the head of a pin, are destructive beyond comprehension, and are the cause of worry and annoyance, and particularly so with O. splendidum, or, for that matter, the whole of the Oncidium family, may be included.

What an interesting species that old O. papilio is, as the name implies, butterfly, which is truly a good imitation of nature. However, this variety may be classed more as a curiosity than anything else. Still, I venture to say, Papilio has aroused the curiosity of many flower lovers. To grow this species successfully a warm house is necessary. I have often wondered why we do not see more of that noble variety, O. Marshallianum. True, it's a bit straggly in growth, also a spring flower, but wherever a batch is to be seen, it is apt to cause admiration. Still,

there is such a variation with the different varieties of Oncidiums being collected in different sections and different altitudes, we find some species thrive best with more heat, others with less. Marshallianum, for instance, will resent too much in quick order, and can be handled better with a few degrees less than are applied to Cattleyas.

Vanda Caerulea, when any one comes down to a delicate blue orchid such as Caerulea, they are mighty scarce. For autumn cut flowers or for decoration, the graceful sprays of Caerulea will have a telling effect wherever placed; in fact, one may say, this variety stands alone for its delicate blue shadings. While they all are blue, it is wonderful the different delicate shades that may be found among a batch, not uncommon to hardly find two plants just alike. Caerulea will also thrive better in a cooler temperature than most of the Vandas.

There are so many spray orchids that come to mind that are worthy of mention, yes, far more than can be mentioned in a short article. But, perhaps, the man that can grow the Phalaenopsis family to perfection has got one of the choicest spray orchids there is to be had, but why is it, as a rule, when anything is extremely beautiful there is usually something tricky about them? I am satisfied, that to grow Phalaenopsis successfully, depends largely on the house as well as the general care and good treatment they receive from the grower. Certain it is, there can be no success in a house unless abundance of moisture can be maintained. We have noticed at times in years gone by, even before the up-to-date houses were thought of, Phalaenopsis could be found flourishing with leaves and flower spikes of great substance, and we have also known to change them from that particular house to another would mean partial ruin. Be it as it may, it has been an undisputed fact, these species may flourish in a certain house and lose their vigor in another, even though the same man was in charge.

Such varieties as P. Amabilis, Schilleriana and Rimestadiana are, I dare say, three of the best for general purposes and for their large, massive sprays. With the host of material in the way of spray orchids and their value for decorative effect I have often wondered why they were not more largely grown.

### How to Produce Perfect Lawns

Oft times it is a difficult matter to secure a good stand of grass over the lawn or it may be almost impossible to maintain the velvety bluegrass, June grass or Bermuda during a period of severe drought. In fact, the problems of the efficient lawn which will prosper for five months in the year are worthy of considerable study on the part of the suburbanite who perhaps off-handedly will maintain that soil, seed and water are the only requisites of an attractive and thrifty grass plot, writes George H. Dacy in *The Field*. As a matter of fact, there is just as much science involved in the culture of a seemly greensward as there is in the production of our most valuable economic crops and plants.

The lawn must be favored with plenty of available plant food for the proper nourishment of the grass; it must have access to plenty of sunlight; it must be supplied with sufficient moisture; it must be maintained free of weeds; the grass clippings must be left on the lawn to decay and enrich the soil, and the correct

amount and suitable variety of grass seed must be sown whenever it is essential to re-seed the lawn. The fertilizer de luxe for the grass plot is barnyard manure, which should be applied as a top dressing in the fall, about fifteen tons to the acre. Stable refuse that is free of weed seeds should be used. Plenty of litter is necessary in the manure, as it forms a protective mulch for the lawn, particularly in the northern latitudes where the winters are severe. This covering of straw in no respect impedes the fertilizing ingredients from being leached into the soil. The straw may be raked off in the spring when the lawn is in the pink of condition for a productive season. The fertile soil which is intensively fertilized with plenty of stable refuse should produce an elegant sward where care is exercised to control weeds.

One of the most desirable seeding mixtures that can be used consists of a combination of twenty-five to thirty pounds of bluegrass seed and six to eight pounds of white clover seed to the acre. In some of the public parks excellent results have obtained where a mixture of two bushels of Kentucky bluegrass, two bushels of red top, and six pounds of white clover seed per acre has been used. Where a vigorous growth is desired, one to one and one-half pounds of this mixture per 100 square yards of lawn surface is sufficient. Only seed of the best quality should be used, as money spent for inferior grass seed is worse than wasted. At the offset it is wise to purchase the best grass seed that is obtainable.

The lawn should be uniform in color, even in texture, and should form a fine, elastic turf. A deep emerald green is the color that is most popular for greensward. The novitiate to the game of lawn-making must constantly bear in mind that a perfect lawn represents years of patient effort. A velvety, turfy greensward is never secured overnight. It means work and lots of it to develop the handsome grass plot.

If the lawn is located on a hard soil that is deficient in nitrogen and humus it is beneficial to sow four or five quarts of crimson clover seed per acre over the plot as crimson clover is an efficient leguminous soilrenovator. To properly grade the lawn and to secure efficient drainage are the alpha and omega of successful grass culture. In case the lot has recently been filled in it should be given plenty of time to settle before the seed is sown. In the interim all the weeds should be thoroughly hoed out. Where the land is native sod it should be top-dressed during the fall of the year with about fifteen loads of well-rotted manure to the acre and subsequently if a spring seeding is desired the soil should be deeply plowed. The following spring a lighter application of manure should be made while the lawn should be efficiently cultivated and disked in order to control the obnoxious weeds. The type of the sub-soil is of measurable importance in lawn-making, as summer drought is always a limiting factor in the case of light and gravelly sub-soils, while ordinarily a healthy vigorous sod develops over a clay

Soil to be used in lawn-making operations should never be taken from excavations of considerable depth, as earth of this character is not suitable for grass production. If it is necessary to use excavated dirt in the lawn approximately fifteen tons per acre of thoroughly rotted manure should be incorporated with this soil, or in case fertilizer of this variety is not available then liberal amounts of bone meal and lime should be applied previous to seeding time. The seed should be sown as early as possible in the spring so that the young grass plants will be well enough established to withstand the summer's dry spell and will attain a vigorous growth before the annual weeds begin to battle with them for the soil's offerings of plant food and moisture. A fall seeding is desirable if a prolific, well-rooted stand can be secured which will weather the severe storms of winter and be in fit shape to get the jump on the weeds in the spring.

Lawn seed should be sown on a calm, quiet day, if possible just before a rain, and should not be covered too deeply; a light raking or rolling will work the seed far enough into the soil so that it will readily germinate. Kentucky bluegrass germinates best when the seeds are exposed to light. As a usual thing where considerable barnyard fertilizer has been used the lawn during the initial season is a mass of weeds. However, this should not worry the owner, and he should not waste any of his time in attempting to pull the weeds by hand, with the exception of dock and other perennials, as when the grass begins to fill out the second season it easily will exterminate the weeds. Instead of pulling weeds the lawn-maker should sow

more grass seed so that more seedlings will develop to compete with the weeds for possession of the soil. Ultimately where this system is pursued the grass sprouts will stamp out all of the weeds.

Where it is necessary to apply fertilizers after the grass is started such ingredients as land plaster, bone meal, nitrate of soda and hardwood ashes should be used. A top dressing of sheep manure, three to five tons to the acre, followed by an early spring application of unleached wood ashes is excellent. The lawn that is too shaded or one that receives too much sunlight are both benefited by applications of hardwood ashes, lime and bone meal. Care should be exercised not to apply an excess of wood ashes, as they tend to develop clover at the expense of the other grasses.

The lawn needs plenty of care and attention even after its formative period has been passed; it should be frequently and regularly mowed and rolled, being sure to leave all the clippings on the ground. As soon as growth starts in the spring the mowing campaign should begin and the cuttings should be continued once or twice a week until the latter part of September. It is essential to allow the grass to attain a long growth before the winter sets in, and all the leaves and other debris which collect over the greensward during the fall should be left undisturbed until the following spring, as they form a protective mulch over the grass during the period of cold weather.

Excessive sprinkling usually accomplishes more harm than good in the development of a prolific lawn. The only effective time at which to water the grass is during the evening, and then the ground should be thoroughly soaked. Two or three thorough soakings at the required periods during the entire summer actually benefit the soil more than a half-hundred half-hearted attempts at daily sprinkling during the heat of the day. Sprinkling during the extreme heat of a clear day is particularly ineffectual as the water is sprayed in so fine a mist that the majority of it evaporates before it ever penetrates to the thirsty roots of the grass plants.

Where immediate results in replenishing the soil's phosphatic resources are desired, 150 to 200 pounds of steamed bone meal per acre may be advantageously broad-casted over the lawn. It should be applied in the spring so that the readily available plant food will be at once leached into the soil and ready for the use of the hungry roots. Where nitrogen is the limiting factor on which the lawn hinges this deficient element may be applied in the form of tankage or dried blood. One hundred pounds of dried blood per acre is a liberal application. Where the soil is decidedly deficient in potash a generous dose of 600 to 800 pounds of wood ashes to the acre will effect wonders in remedying the difficulty.

As was previously emphasized, it is of paramount importance to mow the lawn at least once or twice a week during the growing season. Instead of allowing the grass to attain a length of 1½ or 2 inches, it should be cut every time it has grown three-quarters of an inch. A grass of finer texture and a lawn of superior quality attends these intensive mowing operations. The more frequently the lawn is mowed within certain limits, the less grass there is to cut, as plant growth is proportional to its leaf area. Regular clipping and pruning will favor the development of more shoots which make for a compact, velvety sod.

You pass through this world but once; take it as you find it but leave it better.

### Practice With Science

By W. H. Waite.

The greatest agricultural society in the world has the above for its motto, and it should also be the slogan of horticulturists.

I have sometimes heard it said by good gardeners that a scientific knowledge was of no use to them. It is true that I know many good growers, who have no knowledge whatever of botany, or any of the other sciences which underly the principles and practice of horticulture and agriculture: likewise I know men who are good scientists, yet are only fair growers, yet that does not follow, that if the former had some scientific knowledge along with his good practice, he would be all the more valuable, also vice versa if the scientific man had the practical knowledge that the unscientific has, he would also be a more valuable

Nowadays, when there are a greater number of men available who have a college or horticultural school training, it behooves the gardener who wishes to reach the top of his profession to give some consideration to the

scientific side as well as the practical.

The greatest drawback to the college graduate, as we know him today, is his want of good practical knowledge, therefore, if those with a good practical training would devote part of their spare time to the study of the sciences which are most bearing on horticulture he would in my estimation be much better qualified to fill important positions.

The three principal studies which the young practical gardener should devote his time to, are: botany, chemistry

and entomology.

Some of those who have never studied botany, imagine that it is a dry and difficult subject, but to the gardener who ought to be a plant lover, as well as a cultivator, it is one of the most fascinating and interesting subjects. I know of no subject that trains the observing powers so much as botany.

The science of botany is divided into several sections, the sections of most interest to the gardener are physi-

ology, anatomy, morphology and geographical.

Physiology is concerned with the question of what a plant does, and what a plant's various organs do; in the study of physiology of plants we learn about the nutrition of plants. A plant is presented to us as a complex organism built up of a number of chambers or cells each of which has its special and to some extent independent function.

The function of all cells of the body have two common objects in view, namely, the preservation of the individual, and the production of material which may be employed in the formation of new individuals; these latter are formed in the seeds, the function of which is the

perpetuation of the species.

The leaves of the plants are concerned in the production of the necessary food material, this being effected in the green cells of the leaves under the influence of light and from the raw material, which they obtain from the carbonic acid of the atmosphere, and partly from the soil in the form of mineral salts dissolved in water.

It is the function of the roots to fix the plant in the soil, and by its root hairs to absorb from it the soluble

mineral salts.

The sudy of anatomy or the structure of plants is a necessary auxiliary to the study of physiology. In this section we learn what is the structure of the absorptive organ, the root, also the structure of the stem, with its leaves and flowers.

In the study of physiology we learn what each part of a plant does, and the study of the morphology inquires

By the accurate comparison of plants in all their members morphology aims at finding out the relationship between them, that is, constructing a natural classification of the vegetable kingdom. Classification is often treated as a separate part of the science called systematic botany and a most interesting one to the gardener, but systematic botany can only be satisfactorily based on the comparative

study of plants—that is on morphology

While it is easy to draw a sharp distinction between the physiology and morphology of plants, it is important to remember that neither can be pursued to any advantage without the other. Physiology without morphology would teach us much about the individual life of the plant, but would give us no idea of the vegetable world as a whole, or of the relationship between the innumerable species of which it is composed.

Morphology, on the other hand, would be just as barren, for the complex modifications of the organs of plants would be wholly unintelligible, without reference to the

functions to which they are adapted.

In geographical botany we learn the various parts of the world which the different plants are native of; this, for example, teaches us the uniform character of all alpine vegetation, the peculiarities of the flora of oceanic islands, deserts, etc. This also leads to important conclusions, when we study the distribution of plants, in relation to their structure and mode of life.

In the study of chemistry we do not advise the young gardener that he is to become a chemist or pharmacist. The word chemistry here means the chemistry relating to plants, soils, and manures, commonly called agricultural chemistry. For instance, the value of a soil analysis to the gardener is not to be underrated; it is extremely difficult, nay, impossible, to estimate exactly what quantity of plant food is present in a soil, in an available condition, for a plant's needs. This is best attained by experimenting with the plant itself nevertheless a soil analysis; is calculated in many cases to be of service to the gardener in guiding him as to the best treatment of his soil.

Even a partial analysis may be of great service in showing a soil's deficiency in some of the most important

ingredients such as lime, etc.

Were the discovery and introduction of artificial manures the only service which has been rendered the gardener by agricultural chemistry, it is sufficient to lay

us under a lasting obligation to the science.

Of the manures we employ, too much cannot be known; an accurate knowledge of manures will guard the practical man against the improvident waste of all the natural manures that are obtainable, thus lessening the necessity for foreign manures, by introducing greater economy in the use of those he already possesses. It will also protect him against any imposition on the part of the manure salesman and manufacturer who might sell him an article entirely unsuited to his needs.

The study of entomology is almost a necessity for a gardener these days; it trains him to be observant of the different kinds of insects that infest plants; it enables him to distinguish the injurious from the uninjurious. By knowing the life history of the insects one can use

preventative measures much more intelligently.

Had the practical use of a knowledge of entomology been as much in evidence, say, twenty years ago, as it is today, we would not have had to suffer the ravages of the San Jose scale, brown tail moth, etc., as we have had to do in the past decade. It was only because very little attention was paid to insects that these pests were allowed to go on propagating until they were so numerous as to become an epidemic.

Apart from the financial value any gardener will obtain from even an elementary study of the three subjects, botany, chemistry and entomology, he will derive a much greater enjoyment out of his chosen profession.

#### CONSERVING THE WOODLANDS.

A most interesting and instructive lecture on the conservation of the woodlands of private estates and public parks was given recently under the auspices of the Nassau County Horticultural Society, at Glen Cove, N. Y., by Mr. J. J. Levison, M. F., Forester to the Department of Parks, Brooklyn, N. Y. Mr. Levison augmented his lecture with more than a hundred stereopticon slides illustrating the various phases of his subject as he spoke on them.

Local conditions, as they effect Long Island, were given considerable attention by the lecturer during his discourse, and he warned that unless vigilance is observed the island is in danger of being visited by the gypsy and brown tail moths, both of which have already been discovered on

some parts of the island.

In the care of woodlands, Mr. Levison urged for consideration for their proper upkeep, the idea of providing an under story of trees such as hemlock and beach to take the place of the older trees as they die. Also, to protect the soil by keeping it well shaded at all times, so that the leaves falling on the ground will decay rapidly, and enrich the soil with humus. This, he said, will serve to establish a natural condition in the forest and help the old trees by conserving the moisture in the soil and enriching it as a plant food. He argued that in most parks and on most of the private estates the practice has been just the contrary. The leaves are generally raked off from year to year, and gaps between the trees are allowed to become so open that the sun gets in, dries up the moisture in the soil and allows grass to take the place of the humus.

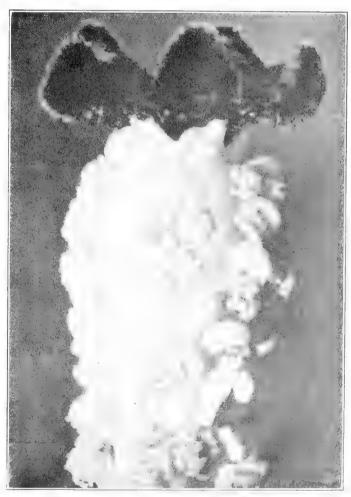
In addition to underplanting with trees, Mr. Levison recommended an extensive use of native shrubs, such as New Jersey tea, bleeding red berry, elder, dog-wood, blue beech, iron wood, etc., etc., claiming these would also aid to help conserve the moisture and soil, besides adding an especial charm to the woodland. In open gaps, where opportunity will permit he suggested additional attractiveness may be added by planting colonies of bloodroot, native ferns, columbines, etc., a method used extensively abroad.

In the treatment of diseases of trees, Mr. Levison stated that success is only possible where every trace of the fibre which penetrates from the fungi into the tree is first entirely removed and where this is not possible it is by far better to chop down the tree, than to fill the cavities. In this connection the lecturer dwelled strongly on the service of the gardener, acting in the capacity of an adviser to the estate owner, contending that the gardener should be in position to observe the need and conditions of trees so that he can keep the owner informed on their requirements. If at any time expert treatment from outside sources is necessary, it would be to the gardener's interest, as well as the owner's, to see to it that the treatment is of a justified as well as of a scientific nature. He stated that it was not his contention that the gardener should place himself in the position to assume the responsibilities of an expert, but that he should accumulate enough knowledge on the subject to be sufficiently posted to know whether the work when undertaken by the expert is really warranted.

Concluding, Mr. Levison pointed out that the proper up-keep and protection of woodland means constant attention to detail and that there is no man better qualified to give this attention than "the man on the job"—the gardener. He added that there may be times when something of technical character may develop on which the gardener may not be informed and, so, to get the proper start he should seek his advice from a well recognized authority and work in co-operation with him.

#### THE ESSENTIAL PARTS OF A FLOWER.

The accompanying illustration from the Journal of Heredity presents the essential parts of the flower, greatly magnified. At the top is the female organ, the stigma, supported on its slender column called the style. Around this style, completely enclosing it, are the many stamens, grown together into a solid tube, over the surface of which are scattered the pollen-containers or anthers. The pollen grains are seen falling from these anthers. When



ORGANS OF REPRODUCTION IN BLASCES

one of these pollen grains is carried to the stigma by an insect, a long tube grows down from the grain through the soft tissue of the style until the ovary is reached. The nucleus in the pollen grain slips down through this tube and into the egg cell in the ovary, where it unites with the egg nucleus, and the machinery of cell division is then set in motion for the reproduction of another hibiscus.

#### AN INDISPENSABLE FARM COMMODITY.

By Karl Langenbeck.

"If you could have seen this country thirty years ago when I took hold of the paper here, you would have more to say than 'fine country' for this section." A pair of snappy blue eyes looked out from the ruddy countenance of the editor as he stretched his legs and then took another pull at the porcelain pipe. "You would add, fine men to have made such a garden of this waste, for that's what it was then," he resumed.

I was erecting a denatured alcohol plant in the old German town to utilize the waste starchy stuff of the rich surrounding farms and used to loaf of an evening in the cozy print shop of the genial editor. "You see Napoleon's armies overran our country three times. They ate it bare as flocks of locusts would and carried off all the likely boys as recruits. The land had never been very fertile and there was neither spirit nor capital to reclaim it. Twenty years of Liebig's teaching had scarcely made an impression and as the farms were small, there were no educated land holders to set the pace for better methods. I saw my chance to do some good, even if there were none to make money. So, I preached soil reclamation in season and out of season, and in the fullness of time, I got my profit with that of the new race of farmers I made. And, I can say it myself, the editor added with a twinkle, for you have found I am popular; they made me a deputy in the Reichstag."

"In season and out of season," he mused. "That means

"In season and out of season," he mused. "That means more than you think. Most farmers know how to reclaim land, but few do it without a boost. When they are in the thick of work, they forget, and in the slack times, they waste themselves with regrets instead of looking forward and preparing. A little thing prepared and at hand when it's needed makes all the difference in the world in a crop. The government bulletins print their advice when the chemist is ready. The agricultural papers mostly print too much and according to the space they have to fill. They talk of pruning in the summer and harvesting in the winter. How is a man to remember? I say, week by week, what should be done now, and nothing more. I have made my paper our people's remembrancer."

Recalling this old talk of a wise man, I am reminded that I do not see on very many of our farms for ready use, a commodity that should always be on hand because of its wide and constant utility, the same as salt and sugar is in the kitchen. Its world-wide value in the work of soil improvement is thoroughly appreciated by the average agriculturist. Without its use, the maintenance and development of the fertility in most soils would be a failure. It is the cheapest and the best sweetener of churns and milk cans, it is the best germicide for the cattle stalls and hen house and the basis of the best fungicide for the fruit trees and berry bushes and it is good for much more. And, when there is some brick or stone work to put up, you need it bad, for it makes the necessary mortar. But when a man gets a carload of lime, which he does at this season, he hauls it to the fields and generally uses it all up. If not, he throws down a pile near the barn and in a month it has no value for the latter purposes which require it fresh, not air slacked. Get enough lime to put aside in tight barrels plenty of the best lump. Cover each barrel with a wet sack well tucked in. Then sprinkle fine lime all over the wet sacks. This will make hydrate and seals all pores when the covering is dry and keeps the air from the lumps.

#### DON'T! DON'T! DON'T!

That is what the children hear for the major part of their earlier lives. It is don't do this, and don't do that

and the prohibition follows them upstairs and downstairs, and into my lady's chamber, and then some; it follows them into the street, into places of public resort; and there is a whole lot of it that could well be eliminated. The absence of so many "don'ts" would add much to the pleasure of the child's life. There is a move on foot looking to this end. It is suggested that as the parks belong to the people, and primarily are designed for the use of the public, particularly for the purpose of affording the opportunity for pleasure, that we should remove the "Keep Off the Grass" and "Don't Pull the Flowers" and other such signs. We agree. That's right. Plant enough grass and flowers. Prohibition makes one want to do the thing prohibited. That is a law of nature. Let the children roll in the grass, or pull the flowers, but teach them care and consideration. We do not think the liberty will be abused. Put plenty of grass and flowers in all the playgrounds. Grass, flowers, children and birds—these go well together; a quadruple harmony than which there is nothing more beautiful on earth.

In some parts of the country this suggestion is being acted upon. Big plots of grass are planted and such an abundance of flowers as would seem to defy license on the part of the kiddies. They are calling these places the "Children's acres." It is a good name, an appealing name. It seems to us that such action will do more to awaken the sense of proprietorship and responsibility in the child's mind than any other one thing could do.

Let's have lots of "children's acres."—Dayton (O.) Journal

#### MAY.

'Mid nature's melody sublime,
 'Mong new born flowers in colors gay,
 Steps forth the stalwart son of time,
 To pay respects to young Miss May.

Afar, o'er vale and mount they climb,
 Trees clap their hands and seem to say,
 "To steal a kiss is not a crime."
 May, like a fairy queen, enchanting,
 Sets natures scattered charms to tune,
 Gallant time comes gallivanting,
 Merry May's no time to spoon.
 She is busy all day planting,
 Contemplates no honeymoon,
 Youth's demand is not her granting.
 Dayid S. Miller.

#### FINE SPECIMEN OF CATTLEYA MOSSIAE.

It was my privilege and pleasure to see, recently, what is no doubt the finest specimen of Cattleya Mossiæ in existence, or I believe of any other variety of Cattleya; not alone for size, but for vigorous health and a wealth of strong well formed flowers I believe it has no equal. The following figures are most interesting and reflect great credit both to Mr. R. D. Foote, of Morristown, N. J., the owner of the plant and to R. Lindabury, who are to be congratulated on their achievement.

The plant was purchased by Mr. Foote in 1909, and

has since borne the following record:

In the year 1910 the plant produced 59 flowers.

" " 1911 " " 26 "

" " 1912 " " 131 "

" " 1913 " " 236 "

" " " 1914 " " 270 "

" 270 " Wm. H. Duckham.

[The plant Mr. Duckham describes is reproduced from a photo on our outside cover page. It is a single plant, not made up, and has a spread of six feet.—Editor.]

### The Modernist Garden

Here a spade is no longer a spade, nor are the birds you see of the feathery kind,

The æsthetic lady gardener of today wears a costume in tune with the great out-of-doors and only the flowers are still what nature intended them to be, it seems.

The art of to-morrow has struck the gardening cult and struck it hard. The strong and steady hand of the æsthetic reformer having accomplished its winter stunt in studio and household interior has now turned its attention to the open air, and an interesting exhibition of implements and designs for the use of the amateur gardener is the result.

No more can one say with economical impulse toward the conservation of material, "Of course the old dress is nothing but rags, but I can take it into the country and use it for gardening," and sit back with that righteous feeling that one has when one has conquered the obsession to spend money.

For the gardening costumes are as complete, as expensive and as artistic as those designed for my lady's matinal shopping tour, her luncheon party, her tango tea and her dinner. Looking at them one is inclined to believe that gardening is destined to become an artificial

accomplishment, such as it was when Marie Antoinette built "Le Petit Trianon" so that she might be a charming shepherdess, and in pompadour gown, a Fragonard hat, carrying a tiny fan, she might be rowed about upon a make-believe lake.

Charming smocks, dainty gowns, embroidered blouses and gloves whose gauntlet wrists show crests and coat of arms are shown by specialists in gardening equipments.

In this same display there are wonderful baskets that look like hats and hats that look like baskets. One is tied under the chin, the other over the arm. Equipped with these you may sally forth, perchance to dig, perchance to dream, perchance to reap the harvest you may have sown, but always secure in the ethical ease that comes from wearing good clothes appropriate to the occasion.

There are also shovels, not the old-fashioned kind our grandmothers used when a spade was just a spade and a yellow primrose by the brook's brim was just a yellow primrose, but shovels that answer all the requirements of the very latest nomenclature; they will even, it is claimed by the fair owner, dig if one insists. The handles are painted in those vivid colors which, it is claimed, our souls require after the long penitential season of pastel shades or sackcloth-and-ashes-of-roses tints. When you go to plant daffodils you may have a spade to match the flowers exactly. Pink snapdragons need no longer have the soil placed about their roots by a drab or dusty gray



AN IDEAL LOCATION FOR A CITY GARDEN SPOT-IF THE "IRRIGATOR" PROVES TRUST" "THY

implement, but by one whose couleur rose is that of the blossom. Leaning on the dark blue handle of one of these, you may gaze at the cluster of dark blue larkspur at your feet while you listen to the song of the lark in the dark blue heavens.

And speaking of larks—leaving for the moment the subject of spades-birds are to be very popular in the gardens this season. One gleans this information from a garden exhibit. They are not real birds, of course; the real bird is too obvious a visitor and too closely associated with utilitarian needs, such as picking off bugs from the rose bushes. The birds selected for the garden will be as artificial as the other innovations. The shops are now displaying foreign looking bird cages made of wicker, such as one sees on the little trees that intensive farming makes possible in some tiny French garden. These are painted in some vivid hue, or gilded gayly, are bell-shaped and hold a parti-colored paroquet whose magnificent plumage makes just the right bit of color in a dreary spot of the garden or an orange and black creature with a tail that resembles one of the fashionable aigrettes and seems to gaze longingly through the wicker bars of its swaving cage, with a pathetic expression to its glass eve and a soulful droop to its taxidermatized wing.

The brilliant little humming bird that you see evidently alighting for the moment on the stalk of some old-fashioned stock is in reality a garden stick, its end stuck in the earth, its head representing some feathered song-ster; a seeming dragon fly never flies away, and a yellow oriole, the shyest of all migratory birds, remains all day firmly planted to a selected spot, and if you put out a hand to stroke its plumage he will not even chirp.

Little footstools are provided for you to sit at your task of weeding wild carrots or other pests of the farmer which sometimes stray from the kitchen garden among the flower beds. The legs are painted to match the flowers, as are the spade handles, and one can have pink, blue, heliotrope, emerald or scarlet. A ribbon handle with bow adds to the general effect immensely, and swinging from the sleeve of the flowered chintz who could cavil at the picture afforded.—Sun.

#### CULTURAL NOTES ON THE TOMATO.

By James S. Bache.

Tomatoes are one of our most important crops, not only with the truck farmer but with every one who maintains a garden from the cottager to the large private establishment which grow for their own use. It is tomatoes everywhere. What we all want to know is, which are the best varieties to grow and how to grow them. Some 20 years ago the tomato was not much heard of. Those who talked of them mostly were of the opinion that they were a breeder of cancers and unfit even for hogs. But today all this is changed; the best physicians will tell you to eat tomatoes and when you think of the many ways the tomato is used, baked, boiled, fried, stewed, canned, preserved, in so many ways it is no use trying to tell of their usages. I will leave all that to the cook and proceed to explain how to grow the tomato.

The culture of the tomato is so easy that it is often neglected. It is often the case that they are planted and left to take care of themselves, which is a great mistake. We can never get something for nothing; to grow good tomatoes the grower must give them some attention. Here is how I grow tomatoes. I sow the seed at the end of March or the second week in April in a box or pan and as soon as they show the rough leaf I pick them off in as small a pot as I can get, for this reason, to keep them stocky and short jointed, for if you give them lots

of root room and loose soil you will get rank growth which means no fruit. When six inches high they should be fit to plant out in the garden or field where the ground has been prepared for them. I find the best and quickest way to prepare the ground is to dig pits 15 inches deep at the distance of three feet apart in the rows and six feet from row to row. In these pits I put a fork of good rotten manure and a 2-inch pot of fine bone meal well worked up to the depth of 18 inches. Fill in some soil to leave the ground in a hollow to take water if required. To each plant I put a strong stake 6 feet high to which I tie my plant after I have given it the first pinch to make it give me two shoots. After it begins to grow I keep all side shoots rubbed off, not cut. Don't leave it as long as to require the knife. As you see the shoots breaking rub them out; this will save the plant from spending its strength on useless growth. When you have two or three good clusters of fruit formed it is time to feed them with some stimulant of some sort which should consist of liquid manure in the way of cow or sheep dropping well soaked in water. One pail of manure to 50 gallons of water make a good stimulant. When watering give a good drenching and at all times keep the soil well hoed about the plants to keep the weeds down and surface loose to let warmth down to the roots. Remember they are a plant that like a light, dry atmosphere to set their



BACHE'S ABUNDANCE.

blossoms and if they get crowded and shaded you will not get good results. The varieties to grow I would prefer to leave to the grower as every one has not the same taste as to flavor, color or shape, in which there is a great difference in the different varieties grown. I may say I have grown most of the best varieties in America as well as those from the other side, and by crossing I have succeeded in getting a tomato which is worthy of a trial. It has been awarded a first-class certificate of merit at Boston and it has been honored with specials and commended wherever it has been shown. It is named Bache's Abundance. You will notice in the accompanying photo that the fruit is without depression at the stem end. A fruit that is round and without ridges; a fruit that is well formed and compact; a fruit of medium size growing in large clusters. When the fruit is matured its bunches touch the soil. I consider a good tomato. Some future time I will endeavor to give some notes on the culture of the tomato under glass, and on its diseases and insect enemies, and what are the best remedies to use to keep diseases and insects in check.

### The Means of Utilizing Birds in Horticulture

Many people have absorbed the idea that birds were created to protect the crops from insect pests, but the relations of birds, insects and other forms of animal life are not quite so simple as this belief would indicate. No man, according to an address made by Edw. H. Forbush before the Massachusetts Horticultural Society, yet is wise enough to understand fully the marvellous relations and interdependences existing between the various forms of animal and vegetable life, but we know that there exist between vegetation, insects and birds what may be termed, for want of a better word, primeval economic relations, a sort of dependence one upon another; the existence of each one depending upon the existence of the others.

Birds perform the function of an aerial police force, because they are the best fitted of all the forms of animal life to concentrate quickly on any unusual irruption of insects or other lesser animals. Such an influence, working thus upon destructive or potentially destructive pests must of necessity have a beneficient relation to agricultural industries. Birds have a marvellous capacity for destroying pests. They are wonderfully active and tremendously energetic and the resultant great and constant wasting of the tissues calls for exceedingly rapid renewal. Constant fuel is required to keep the vital fires brightly burning. Hence, birds require an enormous quantity of food.

The late Chester A. Reed, author of "Bird Guide," regarded one hundred insects as the average number eaten by each individual insectivorous bird daily. He estimated by an ingenious calculation that two billion five hundred and sixty million (2,560,000,000) insects or twenty-one thousand (21,000) bushels are eaten daily by the birds of Massachusetts. I believe it was Professor Lawrence Bruner who estimated that the birds of Nebraska, a much larger State, ate one hundred and seventy carloads in a day. When we consider that a very large proportion of the insects are injurious, or would become injurious, to crops or trees if not held in check, we can see the advantage of increasing and fostering bird life. We may even reduce some of these benefits to the common standard of dollars and cents.

I hold in my hand a document, containing a message of the President to Congress, transmitting a report of the biological survey of the Department of Agriculture, in which it is stated that a single species of hawk saves the farmers \$175,000 yearly by destroying grasshoppers and field mice; and that the native sparrows of the United States save to the agriculturists \$35,000,000 yearly by destroying weed seeds. Professor F. E. L. Beal of the Department of Agriculture has made a careful study which seems to show that each pair of meadow larks is worth at least \$4 a year to the farmer, because of the grass they save by the destruction of insect pests. A friend in Bristol County, having carefully studied the work of the bob-white or quail is satisfied that each pair on his farm is worth \$5 a year to him, because of the potato beetles and other insects they destroy.

Birds are of greater potential value in the field and forest than in orchard or garden. Insecticides and other means may be used to control certain pests, but we cannot spray with poisonous showers the grass which horses and cattle eat, nor can we spray all the trees in all the woods. We are absolutely dependent on the birds and

other natural enemies of insects to protect the trees and the grass crops of the country from insect pests. Wherever birds exist in normal number, they perform this office well except where some foreign pest has been introduced which they are not accustomed to.

Something, however, may be done to utilize birds in horticulture and fruit growing, for there are many injurious insects that cannot be reached by arsenical spraying. Some which are readily destroyed by birds cannot be controlled by any practicable mechanical means now known. Birds, if attracted to an orchard in numbers, are very destructive to the principal leaf-eating insects, such as the tent caterpillar and the canker worms, the codling moth and, in less degree, to the gypsy and the brown-tail moth which our birds do not yet fully understand, although about fifty species are known to feed on one or both. Such insects can be controlled by spraying, but there are many insects which feed under the bark or in the wood, destroying the tree, which cannot be reached by spraying, for example, the introduced leopard moth. Fruit growers know how dangerous a pest it is, but there is little fear that there will be any great loss from this insect in the country at large, provided we are able to foster and increase the stock of native insectivorous birds. Nuthatches save the orchardist thousands of dollars in one season.

The principal means of utilizing birds in horticulture are to attract them to the spots where they are needed and to protect them there and, if possible, increase their numbers. Owls are among the most beneficial of all birds because they destroy mice and nocturnal insects, particularly field mice, which are very destrucive to trees and crops. All European writers who have observed the habits of the owls agree that they are wonderfully useful in this respect. Our larger species, such as the great horned owl and the barred owl sometimes molest poultry and game, but the smaller species almost never pursue fowls or pigeons except when driven by stress of weather and starvation. The screech owl may often be induced to make its home on a farm by putting up a uesting box for its accommodations. A box twelve inches square and fifteen inches high with an entrance near the top four inches by five would be ample for a family of screech owls, and such a box as this was chosen by a pair of screech owls near my orchard. In this they reared their young and while there destroyed all the mice about the

In conserving small birds, it is well, so far as possible, to secure the services of their natural protectors. Kingbirds, while quarrelsome, act as protectors to other small birds by driving away crows and hawks. Kingbirds may often be induced to nest in the orchard by hanging our branches or fences a plentiful supply of cotton string cut in lengths of one foot. This sometimes will induce ortoles to nest. Martins also drive away hawks.

Some few experiments have been made with birds in greenhouses by introducing them there as protectors of the plants. In one such case, some juncos and tree sparrows, shut in a greenhouse in the fall and kept there during the winter, absolutely destroyed a pest of plant lice. Hummingbirds are serviceable among flowering plants, not only because, like the bees, they distribute pollen, but also for the reason that they feed on many of the minute insects of the plants and flowers, some of which may be too small to escape the notice of other birds. Hummers may be readily attracted by planting bee balm, honey-suckle, or almost any deep, bell-shaped flower.

THE

#### GARDENERS' CHRONICLE

OF AMERICA.

MARTIN C. EBEL, Managing Editor.

Published by

#### CHRONICLE PRESS

M. E. MAYNARD, President.

A. A. FAY, Sec'y.

Office of Publication

1 Montgomery Street, Jersey City, N. J.

New York Office

236 WILLIAM STREET, NEW YORK CITY.



:: :: Subscription Price, 12 Months, \$1.00 Single Copies, 10 Cent Foreign, \$1.50

Entered as second class matter February 18, 1905, at the Post Office at Jersey City, N. J., under Act of Congress of March 3, 1879.

Published on the 15th of each month.
Advertising forms close on the 10th preceding publication.
For information regarding advertising rates, etc., address Advertising Department, Gardeners' Chronicle, Madison, N. J.

ADOPTED AS THE OFFICIAL ORGAN OF THE

NATIONAL ASSOCIATION OF GARDENERS

President, Vice-President, ITE, J. W. EVERETT, JAMI Y. Glen Cove, N. Y. Mam Secretary, MARTIN C. EBEL, Madison, N. J. WM. H. WAITE, JAMES STUART, Yonkers, N. Y. Mamaroneck, N. Y.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; William Duckham, Madison, N. J.; Alexander MacKenzie, Highland Falls, N. Y.; John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1915—John Shore, Harrison, N. Y.; Thomas Proctor, Lenox, Mass.; William N. Craig, Brookline, Mass.; Frank E. Witney, Fishkill, N. Y.; Robert Williamson, Greenwich, Conn.; F. Kirk, Bar Harbor, Me.; James Bell, New York, N. Y.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.: James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

Vol. XVIII.

MAY. 1914.

No. 1.

The CHRONICLE is not given to sounding the praises in its columns which others may bestow on it, as it always has felt that space this would occupy can be utilized for more interesting matter to our readers. Let it be understood, however, that our readers are no less appreciative than those of our contemporaries' columns in lauding us as "You are the best ever," "You can't be beat," "I cannot do without you." Of course, we like to receive such expressions of commendation and herewith acknowledge them collectively; but, kind reader, if you do not see your complimentary manifestation in print, do not believe us to be any the less appreciative for it. We can say with all candor, that the many congratulatory messages which come to us are as straws indicating that the CHRONICLE is making a gradual and steady growth as an influencing factor in the horticultural world. Can you not observe it?

Mr. Gardener, it is not too soon to plan for the 1915 spring show to be held in New York. The private grower was much favored in the last two spring events in New York, and a glance at the make-up of next year's Flower Show Committee printed elsewhere in these columns should make it self evident that the gardener's interest will again be safeguarded.

He is not asked to underwrite the guarantee fund, to contribute to the expenses of the show or to assume any obligations, except to prepare in ample time to lift the generous prizes which are again to be offered. This obligation he should faithfully assume.

#### THE GLORY OF THE GARDEN.

Our England is a garden that is full of stately views, Of borders, beds and shrubberies and lawns and avenues, With statues on the terraces and peacocks strutting by; But the Glory of the Garden lies in more than meets the

For where the old thick laurels grow, along the thin red

You'll find the tool- and potting-sheds which are the heart

The cold-frames and the hot-houses, the dung-pits and the

The rollers, carts and drain-pipes, with the barrows and the planks.

And there you'll see the gardeners, the men and 'prentice

Told off to do as they are bid and do it without noise; For, except when seeds are planted and we shout to scare the birds.

The Glory of the Garden it abideth not in words.

And some can pot begonias and some can bud a rose, And some are hardly fit to trust with anything that grows; But they can roll and trim the lawns and sift the sand and

For the Glory of the Garden occupieth all who come.

Our England is a garden, and such gardens are not made By singing:—"Oh, how beautiful," and sitting in the shade,

While better men than we go out and start their working

At grubbing weeds from gravel-paths with broken dinnerknives

There's not a pair of legs so thin, there's not a head so thick,

There's not a hand so weak and white, nor yet a heart so sick.

But it can find some needful job that's crying to be done, For the Glory of the Garden glorifieth every one.

Then seek your job with thankfulness and work till further orders,

If it's only netting strawberries or killing slugs on borders:

And when your back stops aching and your hands begin to harden,

You will find yourself a partner in the Glory of the

Oh, Adam was a gardener, and God who made him sees That half a proper gardener's work is done upon his

So when your work is finished, you can wash your hands and pray

For the Glory of the Garden that it may not pass away! And the Glory of the Garden it shall never pass away! RUDYARD KIPLING.

#### NATIONAL ASSOCIATION NOTES

M. C. EBEL, Secretary, MADISON, N. J.

#### THE CO-OPERATIVE MOVEMENT.

A number of the local societies have appointed their co-operative committees in response to the communication sent out by the National Association last month, requesting that such action be taken by the organization desiring to co-operate with it. Those societies which have not yet taken action but which intend doing so, and those which have already done so but have not yet reported to the secretary of the association, will confer a favor on the National Committee by acting at their earliest convenience, and by sending the names of those elected from the committee to M. C. Ebel, secretary, National Association of Gardeners, Madison, N. J.

#### THE BY-LAWS IN PAMPHLET FORM.

The revised By-Laws of the association have been published in pamphlet form and are ready for distribution to all members who may desire a copy. A card to the secretary's office asking that a copy be sent will receive attention and a copy of the By-Laws will be forwarded.

#### THE SERVICE BUREAU.

The association's service bureau has recently had many inquiries for first class assistants, but has found difficulty in filling the positions, in fact several of them are still unfilled at this writing, due, it seems, to a scarcity of capable men willing to act in assistants capacities. On the other hand there are many young men about, all seeking head gardeners' positions, of which there are a decided scarcity just at this time. The young men, if efficient to fill the position of head gardener or superintendent are to be commended for their ambition to improve themselves, but remember the old adage: "A bird in hand is worth two in the bush"; and, so, the young man may frequently be far better off holding down a good assistant's position and awaiting his opportunity for betterment, than to give up a good position to go out to seek his opportunity with nothing definite in view.

### SPRING FLOWER SHOW FOR NEW YORK IN 1915.

All arrangements have been completed for another spring show in New York, the date agreed on being March 17 to 23, 1915. Organization was completed early this month, the 1915 Flower Show Committee being constituted as follows: Frank R. Pierson, chairman; T. A. Havemeyer, vice-chairman; John Young, secretary; Fred. R. Newbold, treasurer; Chas. H. Totty, Wm. H. Duckham, James Stuart, Wallace R. Pierson, Jos. A. Manda, M. C. Ebel, Julius Roehrs, F. L. Atkins, Frank H. Traendley, Geo. V. Nash, Prof. N. L. Britton, Wm. H. Siebrecht.

The committee has already held several meetings to prepare the schedule which it hopes to have ready for distribution early in June. It is the committee's aim to have more groups and massive plants at next year's show than were seen at the previous shows. Many other new features are also to be introduced to make the show the most attractive of any ever held in this country.

#### AMONG THE GARDENERS

James F. Slimon, for many years manager of J. M. Thorburn & Co., later of Vaughan's New York store, and more recently holding a similar position with Grant F. Lippert, died at his home in Brooklyn on May 8, in his 51st year. Mr. Slimon numbered a host of friends among the gardening fraternity who will be grieved to learn of his untimely demise.

- D. L. Mackintosh was recently appointed chief horticulturist at the Minnesota State Prison, Stillwater, Minn. Before going west some years ago, Mr. Mackintosh was superintendent of Bellwood Farm, Geneva, N. Y., but he has since become a firm believer in big future opportunities for the gardener in the Northwest.
- W. D. Nickerson, gardener on the estate of M. T. Jones, at Houston, Texas, will come North to take charge of the Jones summer home at North Conway, N. H.
- R. W. Fowkes, who was appointed gardener on the Howard Cole estate, Madison, N. J., this spring, is now in full charge of that place.
- J. C. Shield writes under recent date that everything in the section of Monticello, Ill., is looking splendid, and that they expect to pick fresh peas, etc., about the 30th, which will be only five days later than usual.

Wm. Plumb, chief of horticulture of the Panama-Pacific Exposition, assumed the duties of his position on May 1st.

N. Butterbach has been appointed general superintendent of the new B. B. Ward estate, New Rochelle, N. Y.

William Allan, formerly gardener to Dr. Jacobs, has accepted a similar position on the estate of Mrs. Geo. D. Widener, of Newport, R. I.

#### APPLICATION FOR MEMBERSHIP

### National Association of Gardeners

I hereby apply for	Membership in your	Association: —
Name in full		
Occupation		
Address		
Date		
Reference		

Forward Application to M. C. EBEL, Secretary, Madison. N. J., with dues, which are \$2.00 annually, including subscription to the official organ of the Association.

#### A RECORD UNIQUE

The little town of Lenox is justly celebrated for several things, notably its beautiful scenery, magnificent country homes and its literary associations. But there is another feature which will interest the horticultural and agricultural fraternity, and that is, the men who have charge of the Lenox estates, who for some reason which seems peculiar to the locality, "stay put," a characteristic which has become so marked that a New York seedsman is responsible for the assertion that the Lenox superintendents "neither die nor resign." That this statement may be a trifle overdrawn in the first part we will not attempt to deny, but we submit that there are few localities in these United States or in the world which can match our record. For we have within a radius of three miles twenty-seven estates of varying size, the superintendents of which have an aggregate of five hundred and forty years service to their credit, or an average of twenty years each. And if we select ten of the long service men they average thirty-one years each. Nearly a dozen have been the only occupants of their position, having been there from the beginning of the place as a country estate and some have held their position under several owners, apparently being like Tennyson's "Brook," for owners may come, and owners may go but they go on for ever. Some may argue that staying long in one place tends to make a man narrow, or moss-grown. Be this as it may, long and faithful service has ever been looked upon with some measure of respect the world over and employer as well as employee may well be congratulated upon a condition so honorable to all parties.

We feel that the accompanying photograph would be incomplete without a few words about the men and the estates they manage, so we will commence with the dean of the corps, John Baker, who is seventy-five years young, straight as an arrow and as active as a youth: he has had charge of "The Dormers," Mrs. R. T. Achmutys' estate,

for more than forty-five years and is an allround farmer and gardener. Our next veteran is William Henry, who for forty years has "gardened finely" at Groton Place. the estate of Mr. Grenville L. Winthrop, where there is a very fine Italian garden, extra fine hardy trees and a very interesting orchard of dwarf fruit trees. James Feeley is quite in the running with thirty-eight years at Wyndhurst, the estate of the late John Sloane. Mr. Feeley's specialties are pedigreed cattle, poultry, orchards, vegetables and all the rest that goes to make the products of a complete country home. Charles Mattoon is in the same class, having for thirty-eight years had charge of the Morgan Farm on the Ventford Hall estate. Alexander McConnachie, who is now for the second time president of the Lenox Horticultural Society, has been at "Tanglewood," Mr. Richard C. Dixev's place, for the last thirty-three years, gardening and farming. Mr. John M. Hughes is our next subject, and he has been at "Wayside," the estate of Mrs. Wm. H. Bradford, for thirty years. Rudolf A. Schmidt has been at "Sunnycroft," the estate of Mrs. G. G. Haven for twenty-six years, and in addition to being an expert horticulturist has been very successful with poultry. E. J. Norman is rapidly approaching the quarter century mark as superintendent of "Erskine Park," the estate of the late George Westinghouse. Here are lawns of nearly a hundred acres in extent and miles of drives as well as powerful fountains which play every day in summer, and Mr. Norman has had the making of it all. A. H. Wingett is likewise getting very close to the quarter century mark as superintendent of "Allen Winden," Mr. Charles Lanier's estate. Mr. Wingett is a delegate to the State Board of Agriculture, where he very ably represents the Lenox Horticultural Society. George H. Thompson was unavoidably absent when the photo was taken, but was worthily represented by George H., Jr. Mr. Thompson has had charge of "Wheatleigh," the estate of Mr. Carlos De Heredia for some twenty-two years and has been



Reading left to right the names are: Front row-Walter Marsden, Thomas Proctor, E. J. Norman, John M. Hughes, A. McConnachie, Wm. Herry, John Baker, James Feeley, Cl. 8 Matten.

Second row -Wm. Tirrell, John Kiah, David Dunne, F. H. Butler, Walter Jack, John Donahue, R. A. Schmidt, Harry Herreman.

Third row-George H. Ferguson, A. J. Loveless, Alex. McLeod, Frederick Herremans, A. H. Wingett, George Foulsham, Edwin Jenkins, S. Carlquist, Robert Purcell, George H. Thompson, Jr.

there ever since the place was started. "Wheatleigh" is noted for its beautiful Italian gardens, fine coniferous trees and the production of high class vegetables.

Frank H. Butler has been twenty-two years superintendent of "Interlaken," the estate of Mrs. John E. Parsons. Mr. Butler has been selectman for the town of Lenox for many years and the estate he manages has always been noted for its excellent collections of herbaceous plants. G. W. Ferguson is another of our city fathers and has had charge of "Pinecroft" for a score of years. "Pinecroft" is the estate of Mr. F. A. Schemerhorn, and Mr. Ferguson made it famous by raising a record crop of wheat a few years ago. A. J. Loveless has nearly a score of years to his credit as superintendent of "Wyndhurst Gardens," the estate of Mrs. W. E. S. Griswold. Mr. Loveless has always been a heavy prize winner at all the exhibitions and has done some good work in hybridization of amaryllis and orchids. John Krah has been nineteen years in charge of "Coldbrooke," the estate of the late Captain John S. Barnes and has always been to the front with the good things of horticulture and agriculture. John Donahue has seen nineteen years at "Belvoir Terrace," Mrs. Morris K. Jessups' place. Mr. Donahue succeeded his father, the late P. J. Donahue, who was widely known as a clever landscape gardener, and "Belvoir Terrace" is a fine example of his work.

Walter Marsden superintends "Sunnyridge," the estate of Mr. George W. Folsom, and has done so for eighteen years. Here are interesting old fashioned gardens and superb lawns. Edwin Jenkins has been at "Bellefontaine," the estate of Mr. Giraud Foster, for seventeen years. Sigerd Carlquist has had charge of "Ethelwyn," Mrs. Robert Winthrop's place, for thirteen years and has always been in the forefront at the shows with grapes, carnations, chrysanthemums and vegetables. Thomas Proctor has been at "Blantyre," the estate of Mr. R. W. Paterson, for something over thirteen years, and in that time "Blantyre" has become famous for its chrysanthemums, orchids and its conservatory, which is always bright with whatever flowers are in season. The work of laying out "Blantyre" was largely planned and entirely carried out

by Mr. Proctor.

"Elm Court," the estate of Mr. W. D. Sloane, is one of the largest and best appointed places in the country, and is under the able superintendence of Frederick Herremans, where he has been this eleven years past. Mr. Herremans is an expert exhibitor especially of plant groups for effect, in which he is seldom defeated. Walter Jack has been at "Sprinklawn," the estate of Mrs. John E. Alexandre, ever since its beginning some eleven years ago, and is strong on annuals, early vegetables and all kinds of hardy plants. David Dunne has been at "Clipston Grange," the estate of Mr. Frank K. Sturgis, for eleven years, and a glance at the place will convince any one that an able gardener is in charge. William Tirrel is another eleven year man and like many of the others it is not his fault that he has not a longer period of service to his credit, for he has been at "Pine Needles" ever since the owner, Mr. George Batty Blake, started the place. George Foulsham is likewise deprived of the honor of having served a, few score years by the fact that Mr. W. B. O. Field, the owner of "Highlawn," only opened up the place some five years ago. This fact has not prevented Mr. Foulsham from showing up strong at the summer shows with sweet-peas, perennials and annuals

Robert Purcell has been at "Eastover," the estate of Mr. Harris Fahnestock since its beginning some four years ago. This place promises to rank high among the Lenox gardens. Harry Herremans is one of the juniors, having been at "Edgecombe," the estate of the Misses

Furnisses, for about three years, and Alexander McLeod is another of the newcomers, he having charge of "White Lodge," the estate of Mr. Albert R. Shattuck.

#### A HORTICULTURAL INVESTIGATION.

The Bureau of Plant Industry, of the United States Department of Agriculture, has undertaken to conduct a campaign of investigation on the behavior of ornamental plants in all parts of the United States, and as much information as is possible to obtain is naturally desirable on the actual behavior of the plants in different localities. With this in view, a form for the recording of the desired information has been prepared, which will be supplied to anyone signifying a willingness to co-operate in the work.

The information asked for covers the time of opening and dropping of leaves and flowers, and coloring and

dropping of fruit when there are any.

F. L. Mulford, Landscape Gardener of the Bureau of Plant Industry, in charge of the investigation, believes that the gardeners of America are in a position to materially help the department in this work and he invites them to co-operate in it to the lmit of their available time. Those who can assist in the investigation should immediately address themselves to F. L. Mulford, Landscape Gardener, Department of Agriculture, Washington, D. C., and they will then be supplied with the necessary blanks and instructions for gathering the information that is being sought.

In co-operating with the United States Agricultural Department in this cause the gardeners will indirectly benefit themselves as the accumulated information will be properly compiled and the records will be filed as a future reference; so that it will be possible for the gardener to inform himself on the habits of the different ornamental plants in the various localities of the country, and not find it necessary, as he frequently does now to plant and then learn, by experience, that certain plants are not adaptable for the surroundings in which they are planted.

#### AN INTERESTING EXHIBIT.

To those particular appreciative lovers of rare greenhouse flowering plants the following will bring back to the memories of those who had the opportunity to view the numerous exhibits of Acacias, Ericas and Boronias at the International Flower Show which was held in the latter part of March in New York, what a fine display they were.

It must have been most pleasing for the many British gardeners in particular, who visited this show to note the increasing number of entries made this year over last, and the most pleasing part of it is that ninety-nine per cent. of all the plants were American grown, and there-

fore not imported or grown in Europe.

I was over-joyed at the very fine collection staged by the Knight & Struck Company of Flushing, New York, for which they were awarded the first prize.

In this group I noticed several very fine plants, among

which I mention the following few:

Which I mention the following few:

Hardenberghia Monophylla; a beautiful dark mauve

Choysia Ternata; with its sweet scented orange blossom-like flowers.

Boronia Elation; bearing innumerable cherry cerise oval flowers.

Boronia Megastigma; chocolate colored sweet scented flowers.

Splendid plants of *Coronella Glauca*; showing masses of glistening bright yellow flowers.

Magnificent seven-inch pots of well-flowered Chorozema Cordate Variety Spiradens.

Special mention is to be made of the beautiful Bauera Rubioides; dozens of well-flowered specimens were to be

Among the Acacias, I noted A. Cordata; a dwarf species, cat-tailed spikes of light yellow flowers; A. Longifolia, A. Heterophylla, A. Floribunda, A. Cultriformis, etc.

Among the most noteworthy varieties of Ericas, I was delighted to see some Erica Transluscens; fine specimens in eight-inch Asalea Pans, bearing eight to nine spikes of pink-tubed flowers; Erica Sindryana, also called the Blue Heath, long-tubed variety; elegant plants of Erica Cavendishii, the yellow heath; Erica Perspicua Erecta, the white-tubed variety; also elegant specimens of Erica Persoluta alba and Rosea; Erica Barbata; and hundreds of Erica Cupressiana, a dwarf heath bearing innumerable clusters of pink bells.

I understand this firm grows some twenty distinct varieties of Ericas, devoting some ten houses to their culture exclusively. I had occasion to visit their establishment last fall, and I must admit my surprise to view the enormous stock they had on hand at that time.

HENRY LE CHEVALIER.

#### THE AMERICAN SWEET PEA SOCIETY'S PRELIMINARY SCHEDULE OF PRIZES FOR THE SUMMER EXHIBI-TION, TO BE HELD AT THE MUSEUM OF NATURAL HISTORY, NEW YORK, IUNE 27 & 28, 1914.

The Henry F. Michell Company's Prizes. For the best six vases of Sweet Peas, 25 sprays, and a vase of six distinct Spencer varieties, the Mitchell silver medal. For the best 25 blooms Sweet Peas, Apple Blossom, Spencer with foliage, the Mitchell silver For the best vase Sweet Peas, Spencer varieties mixed with foliage, not less than 100 blooms, the Mitchell silver medal.

Messrs. R. & J. Farquhar & Co.'s Prize.—Best bridal bouquet of Sweet Peas, Gypsophila sprays or foliage other than that of the Sweet Pea may be used. (Private gardeners only.) Three rizes. First prize, \$10; second prize, \$6; third prize, \$4.

The Knight & Struck Company's Prizes.—For the best vase

of Sweet Peas, containing 25 sprays, of which no two are alike in shading. First prize, \$25; second prize, \$15; third prize, \$10.

The Peter Henderson & Co.'s Prizes (for Private Gardeners) .-For the best 12 vases, 20 sprays to vase, of 12 distinct varieties of Spencer Sweet Peas. First prize, \$25; second prize, \$15; third prize, \$10.

The Peter Henderson & Co.'s	Prizes (for Amateurs Only).—
Best vase 12 sprays white Spence	r Sweet Peas \$5.00
Best vase 12 sprays pink Spencer	Sweet Peas 5.00
Best vase 12 sprays lavender Spe	ncer Sweet Peas 5.00
Best vase 12 sprays bicolor Spend	er Sweet Peas 5.00
Best vase 12 sprays cream-pink S	Spencer Sweet Peas 5.00
Best vase 12 sprays crimson Spen	icer Sweet Peas 5.00
Best vase 12 sprays orange Spend	er Sweet Peas 5.00
Best vase 12 sprays rose Spencer	Sweet Peas 5.00
Sweenstakes.—To the winner of	f the greatest number of Peter

Henderson & Co.'s amateur prizes, \$10.

Messrs, Burnett Brothers' Prize.—A silver cup, value \$25.

The W. Atlee Burnee Cup (Value \$25).—For the finest 12 vases of Smoot Poor 19 process.

of Sweet Peas, 12 varieties. The W. Atlee Burpee Prize.-For the best vase of one variety

of Spencer type Sweet Peas introduced 1914. First prize, \$5;

second prize, \$3; third prize, \$2.

The W. Atlee Burpee Prize.—For the best vase of Grandiflora type Sweet Peas, one variety. First prize, \$5; second prize, \$3; third prize, \$2.

The Arthur T. Boddington Prize (Challenge Silver Cup, Value \$50).—For a collection of Sweet Peas, 25 varieties, not less than 25 stems to a vase, to be shown with Sweet Pea foliage only. To be won twice by the same exhibitor. There will also be awarded to the winner of this cup (each time won) a cash prize

The C. C. Morse & Co.'s Prize (A Silver Cup, value \$25).—For the finest display of Sweet Peas. Open to the seed trade only.

Messrs. Stump & Walter Company's Prize.—For the best six

vases of Sweet Pears, six distinct Spencer varieties, 20 sprays to the vase. First prize, \$15; second prize, \$10; third prize, \$5. For private gardeners only.

The Henry A. Dreer Prizes .- For the best vase of Florence Nightingale Sweet Peas. First prize, \$3; second prize, \$2. For

the best vase Queen Alexandra Spencer, Sweet Peas; first prize, \$3; second prize, \$2. For the best vase white Spencer Sweet Peas; first prize, \$3; second prize, \$2.

The Mount Desert Nurseries Prizes .- For the best vase of Sweet Peas, one variety, any color, 25 stems arranged for effect, any other foliage than Sweet Pea may be used. First prize, \$7.50; second prize, \$2.50.

Mrs. Sutton & Son's Prize (A Silver Cup, value \$25).-For the best table of Sweet Peas to be arranged on a space 4 by 3 feet and not to exceed 3 feet in height. Sweet Pea foliage or Gypsophila, or both, can be used.

The Watkins & Simpson Prize.—For the best six vases Spencer

or Unwin Sweet Peas. First prize, \$10.

The American Sweet Pea Society's Prize.-For the best display covering 24 square feet; Sweet Pea or other foliage can be used. First prize, The American Sweet Pea Society's silver medal and \$25; second prize, The American Sweet Pea Society's bronze medal and \$15.

The American Sweet Pea Society's Prizes.—For the best 12 vases of Sweet Peas, 12 varieties, 10 sprays to a vase. First prize, \$12; second prize, \$8; third prize, \$4.

The American Sweet Pea Society's Prizes.—For the best six

vases of Sweet Peas, 6 varieties, 10 sprays to a vase. First prize, \$6; second prize, \$4; third prize, \$2.

The American Sweet Pea Society's Prizes.—For the best three vases of Sweet Peas, 3 varieties, 10 sprays to a vase. First prize,

\$4; second prize, \$2; third prize, \$1.

Sweet Peas.—Decoration for table of eight covers; glasses, cutlery and linen to be used. First prize, \$25; second prize, \$15; third prize, \$10. Exhibitors shall be allowed to use Sweet Pea foliage, asparagus, smilax, Gypsophila or all. Ribbons also allowed.

Sweet Peas-Spencers.

				1st.	2nd.	3rd.
25	sprays	any	white variety	\$4.00	\$3.00	\$2.00
25	sprays	any	crimson or scarlet	4.00	3.00	2.00
25	sprays	any	rose or marmine	4.00	3.00	2.00
25	sprays	any	yellow or buff	4.00	3.00	2.00
			blue		3.00	2.00
			cerise		3.00	2.00
25	sprays	any	deep pink	4.00	3.00	2.00
25	sprays	any	cream pink	4.00	3.00	2.00
25	sprays	any	orange	4.00	3.00	2.00
25	sprays	any	lavender	4.00	3.00	2.00
25	sprays	any	violet or purple	4.00	3.00	2.00
25	sprays	any	magenta	4.00	3.00	2.00
$^{25}$	sprays	any	mauve	4.00	3.00	2.00
25	sprays	any	maroon or bronze	4.00	3.00	2.00
25	sprays	any	Picotee-edged	4.00	3.00	2.00
25	sprays	any	striped or flaked red or rose	4.00	3.00	2.00
25	sprays	any	striped or flaked blue or purple	4.00	3.00	2.00
25	sprays	any	fancy (having three colors)	4.00	3.00	2.00
25	sprays	any	bicolor other than picotee-edged	4.00	3.00	2.00
25	sprays	any	marbled or mottled	4.00	3.00	2.00

#### For Amateurs Only.

	1st.	zna.
Best vase white, 12 sprays to a vase	\$3.00	\$2.00
Best vase pink, 12 sprays to a vase	3.00	2.00
Best vase dark pink, 12 sprays to a vase	3.00	-2.00
Best vase lavender, 12 sprays to a vase	3.00	2.00
Best vase salmon or rose, 12 sprays to a vase		2.00
Best vase crimson or scarlet, 12 sprays to a vase	3.00	2.00
Best vase primrose, 12 sprays to a vase		2.00
Best vase any other color, 12 sprays to a vase	3.00	2.00

#### Retailers.

A Mantel Decoration of Sweet Peas (the mantel to be furnished by the exhibitor).—First prize, offered by The American Sweet Pea Society, a silver medal and \$25; second prize, The American Sweet Pea Society's bronze medal and \$15. Only Sweet Pea foliage, palms and ferns may be used in this class.

A Bridal Bouquet of Sweet Peas.—The American Sweet Pea Society's prizes: First prize, \$10; second prize, \$6. Only Sweet

Pea foliage or Gypsophila may be used in this class.

A Hamper of Sweet Peas.—The American Sweet Pea Society's prizes: First prize, \$15; second prize, \$10. Only Sweet Pea

foliage may be used.

A Corsage of Sweet Peas.—The American Sweet Pea Society's prizes: First prize, \$6; second prize, \$3. Sweet Pea foliage or Gypsophila may be used.

Michell Special Prize for Geranium, Helen Michell.-First prize, \$50 in gold; second prize, Michell's gold medal; third prize, Michell's silver medal, for the best single pot (single plant) of the Geranium "Helen Michell" to be exhibited in connection with The Sweet Pea show of The American Sweet Pea Society in New York, end of June, 1914.

HARRY A. BUNYARD, Secretary 342 West 14th St., New York City.

May 15, 1914.

3rd.

1st. 2nd.

#### JUNE EXHIBITION OF NEWPORT GARDEN ASSOCIATION AND NEWPORT HORTI-CULTURAL SOCIETY—JUNE 24-25.

(Schedule continued from April issue.)

Regular	Classes-	-Cut	Flowers.
---------	----------	------	----------

		lst.	2nd.	ard.
Class 43.	For the best collection of outdoor Roses named varieties, not more than 3 stems or sprays of a vari-			
Class 44.	ety, exhibited on table 9 x 3 feet by Newport County gardeners\$ For the best vase of 25 American	12.00	\$8.00	\$5.00
Class 45.	Beauty Roses	7.00	5.00	3.00
Class 46.	Roses, 12 varieties in bottles For the best 12 Hybrid perpetual	3.00	2.00	1.00
Class 47.	Roses, 6 varieties in bottles For the best vase of 12 Hybrid per-	3.00	2.00	1.00
Class 48.	petual Roses, one variety (red) For the best vase of 12 Hybrid per-	3.00	2.00	1.00
	petual Roses, one variety (pink).	3.00	2.00	1.00
Class 49.	For the best vase of 12 Hybrid per- petual Roses, one variety (white)	3.00	2.00	1.00
Class 50.	For the best vase of 12 Hybrid per- petual Roses, one variety (blush white)	3,00	2.00	1.00
Class 51.	For the best vase of 25 Hybrid perpetual Roses, any varieties	3.00	2.00	1.00
Class 52.	For the best vase of 12 Tea or Hybrid Tea Roses, outdoor grown	0.00	=.00	2,00
Class 53.	(red)	3.00	2.00	1.00
Class 54.	(white)	3,00	2.00	1.00
	brid Tea Roses, outdoor grown (pink)	3.00	2.00	1.00
Class 55.	For the best vase of 12 Tea or Hybride Tea Roses, outdoor grown			
Class 56.	(yellow)	3.00	2.00	1.00
Catto / Cor	brid Tea Roses, outdoor grown (any other color)	3.00	2.00	1.00
Class 57.	For the best 12 Gardenia Bloom	3.00	2.00	1.00
Class 58.	For the best collection of 12 varieties of Hardy Herbaceous flowers,	3.00	2.00	1.00
Class 59.	For the best display of Sweet Peas			5.00
Class 60.	shown with sweet pea foliage For the best 6 vases of Sweet Peas, 6 distinct varieties, 25 sprays in	10.00	8.00	9,00
Class 61.	vase For the best 3 vases of Sweet Peas,	5.00	3.00	2.00
Class 01.	3 distinct varieties, 25 sprays in vase	3.00	2.00	1.00
	Special Classes—Cut Flowers	3.		
Class 60	•	1st.	2nd.	3rd.
Class 62.	For the best vase of outdoor grown Hybrid Tea Roses		\$4.00	
Class 63.	Roses in a space 9 x 3 feetSi	lver V	ase, val	ue \$25
Class 64.	For the best vase of Cut Flowers, artistically arrangedA	Water	Color	Sketch
Class 65.	Best display of Hybrid Tea Roses in space 6 x 3 feet	12.00	8.00	5.00
	Regular Classes-Baskets and Cent	repiece	s.	
Class 66.	For the best fancy basket of Roses and Rose Foliage, outdoor grown.		2nd. \$5.00	3rd. \$3.00
Class 67.	For the best centrepiece of outdoor grown Roses and Rose Foliage	5.00	3.00	2.00
Class 68.	For the best fancy basket of Roses, open to gardeners' assistants only	,	3.00	2.00
Class 69.	For the best fancy basket of Foli- age Plants with flowering plants			
Note.—Cl	or cut flowersasses 66, 67, 68, 69 to be shown on	φ10.00	φ10.00	
Class 98.	For the best 6 distinct kinds of	lst.	2nd.	3rd.
	vegetables		\$4.00	
Class 99.	vegetables		Cup.	

### NEW APPOINTMENTS AT CORNELL UNIVERSITY.

Dr. Beverly T. Galloway has been appointed Dean of the New York State College of Agriculture. He succeeds Prof. L. H. Bailey.

Dr. Galloway, who is 50 years of age, has been engaged in floricultural, horticultural and agricultural pursuits since he has been a young man, and has been connected for many years with the United States Department of Agriculture, rising to the position of Assistant Secretary of Agriculture, to which he was appointed about a year ago, and which position he has just resigned to assume the duties of his new appointment.

He possesses all the qualifications to fit him for his new office, and Cornell University is to be congratulated on the selection made by its board of trustees in the appointment of Dr. Galloway.

At a recent meeting of the Agricultural Council of Cornell University two appointments were made to the staff in the Department of Floriculture. These were the appointment of David Lumsden, of the New Hampshire College of Agriculture, as assistant professor of floriculture, and Clark L. Thayer, of the Massachusetts Agricultural College, as assistant in investigation. Mr. Lumsden comes to the university splendidly fitted for the work. He is a man of wide experience, of pleasing personality, and speaks easily and clearly. He is a graduate of the Sleaford Collegiate School of London, England, and also of the Veitchian School of Horticulture where he specialized in floriculture. For a number of years he was employed in glass houses on private estates in England, and for two years before coming to America was in charge of the glass-house department for growing flowers and fruits and also in charge of the room and table decorations for the Duke of Westminster, from whom he holds a testimonial of high efficiency. Since coming to this country nineteen years ago, Mr. Lumsden has spent thirteen years in practical work on commercial places and six years at the New Hampshire Agricultural College where has has been in charge of the work in floriculture

Mr. Thayer is a native of Enfield, Mass., and a graduate of the Massachusetts Agricultural College in the class of 1913. During the past year he has been doing graduate work at the Massachusetts Agricultural College and has assisted in the teaching. The short courses during the past winter were under his direct supervision. Mr. Thayer will study for an advanced degree at Cornell and assist in investigational work.

The staff of the Department of Floriculture at Cornell is now the largest of any in the United States. It consists of the following: Professor Edward A. White, head of the department; Dr. A. C. Beal, professor of investigation; David Lumsden, assistant professor; Roland H. Patch, instructor; Alfred C. Hottes, instructor in investigation; Miss Lua A. Minns, instructor; Clark L. Thayer, assistant in investigation; Miss Julia Z. Kelly, secretary and curator; Arthur B. Cornelius, gardener; David Murray, assistant gardener.

The CHRONICLE is at the disposal of any person who may desire to subscribe for it. Your address, with one dollar, sent to GARDENERS' CHRONICLE, Madison, N. J., will bring the CHRONICLE to you for one year.

#### THE BEAUTIFUL COLUMBINES.

It is strange that such attractive and hardy flowers, so radiantly beautiful, should receive so little attention.

They are easily grown, require but little effort, and repay all care and labor needed, a hundredfold. Light itself has been dissolved, and all its prismatic rays have been woven into their bloom. I think one trouble has been that they have not been planted on a scale large enough, and in generous masses, so that their charms could be seen to advantage.

People persist in getting a lovely flower, and giving it the task of enlivening dreary surroundings, and the poor thing cannot show to advantage.

Then no single one, beautiful as it may be, can represent them all.

Does one realize what a great family they are, over fifty native species? No flowers hybridize more readily. You secure a large variety, and then sow seeds from these, and you have a marvelous permutation of beauty.

No two flowers of this so-called crop will be entirely alike.

The bumble bees, especially, delight in their nectar. They seem almost intoxicated as they revel in it. Of course, they carry the pollen from one flower to another, and the result is something new. There is an intense fascination in watching the various changes wrought, and to see the bewitching loveliness of some of the new arrivals. If one could sort out some of these and name and describe them, he could give some rare treasures to the floral world. By this process you would have the pleasure of forming new acquaintances whom no one

else has yet met.

Let us take a look at some of them. The Chrysantha the golden. The color is vellow, and not only that, there is a good deal of it. It is intense as though the flower had secured all it could, and had packed and pressed it together, in the most lovely form imaginable. What long and delicate spurs it has! We saw it growing wild in the Yellowstone National Park. There, it was small and comparatively insignificant; but, transported, with good cultivation, it gives grateful response to kindly attention. A flower does not blush as well unseen, while it "wastes its fragrance on the desert air," as when there are admirers, to appreciate its beauty. Many a flower comparatively unattractive in its wild state, will bloom in a prodigality of loveliness, under the influence of cultivation, and where it can be seen and enjoyed. The Picea Pungens, the king of beauty among the conifers, nowhere in all the mountains, does as well, as when transplanted in the rich soil of the prairie or eastern states, and receives the attention it deserves. Then the needles are longer, and the sheen is far brighter, and more radiant than in its own habitat.

There is another of attractive appearance, with long and delicate spurs. The petals are snowy white and intense blue. It seems a photograph of the sapphire of the sky and the fleecy clouds. This is the Coerlia of the Rockies, and the state flower of Colorado. We often see these in masses at an altitude of eight or nine thousand feet. In many places they grow to great size, as some localities seem better adapted to their development than others.

When taken down to the plains they need some shelter from the burning sun and hot winds. This variety really hybridizes with others, and its motherhood is seen in many types in recent years. So readily does it cross, that though the original plants will be all right, yet the progeny varies so readily, and to such an extent, that pure seed must be secured from the mountains if you would be sure.

It is a large, solid flower. It has no spurs whatever. It is quilled like the dahlia. Another is salmon pink, lined with white, a gorgeous flower, and the blooms hang like lamps in a chandelier, around the parent stem. Here is one that is large, compact, snowy white. It is a full and prodigal bloomer, and near it, is a single white, well spurred. In close proximity, is one of deep blue, a single flower, with long, slender spurs, much like the Coerlia, to which it probably owes its parentage. In the crossing, it doubtless got enough of the blue, from one of those of deep azure to eliminate the white.

Time would fail to describe them all. The Golden is less liable than others, to enter into crosses. One reason is, that it is so much later, and yet there are several that show its influence, and many of the golden ones have been somewhat swerved from their distinct form.

These flowers commence blooming with the tulips, and continue to flower for two months, while the Chrysantha will break out, now and then, all summer.

Imagine, if you can, a blend of these charming colors, in a mass of several hundred, some early, others late, some single, others double, many of them tall and others dwarfs. In color from purest white to deepest purple.

#### HOW TO GROW THEM.

Get a quantity of mixed seed, and sow early in the spring. The seeds are small and, of course, must be planted shallow. But here is the trouble, the ground dries before the seed can germinate. Contrive some way to keep the surface wet all the while, day and night, till they come up. But you would better trust to experts, who make it their business, and buy the plants, which can be had at very reasonable rates, and thus save a good deal of care and vexation, and a year's growth, as they will bloom some the first season.

Put in rows eighteen to twenty-four inches apart, and twelve to eighteen inches, in the row, and they will soon

stool out, and cover the ground.

It is better to mulch well with coarse manure, after the ground freezes, and in the spring rake it between the rows.

#### GLEN COVE VS. OYSTER BAY.

A bowling contest was held at Ryders Alleys, Oyster Bay, Friday, May 8, 1914, between teams of five men a side, from Glen Cove representing the Nassau County Horticultural Society andl five from Oyster Bay representing the Oyster Bay Horticultural Society, best two out of three games. Ovster Bay won, taking two straight games. James Duthie, of the Oyster Bay team, was high man in both games. A return match was played at Allchins Alleys at Sea Cliff, May 18, 1914, same teams and terms, when Oyster Bav again won in two straight. Ernest J. Brown, of Glen Cove, made high score in the match, but later in the evening Francis A. Gale, of Ovster Bay, beat his score, making 200. However, if all the Glen Cove boys had done as good bowling as Brown, they would undoubtedly have won the match. A peculiar coincidence is that the Glen Cove team is made up of four Englishmen and one Scotchman, while Ovster Bay has four Scotchmen and one Englishman, and perhaps the two Scotch pipers which the Oyster Bay boys took to Sea Cliff with them may have had a good deal to do with their winning. We certainly had the bag pipes skirlin' and made the rafters ring and jist for the sake o' Auld Lang Syne. We filled our cups and "Hoot Man" bowled IAMES DUTHIE.

### Pruning For Fruit

By V. R. Gardner.

Our primary object in maintaining an orchard is to take from it year after year the largest possible quantities of fruit of the best possible grades and at the lowest practicable costs. It is because of this that we cultivate, fertilize, thin, spray, prune and otherwise care for the trees. This being true, the value of any particular orchard operation or practice can be—and should be—measured by the way in which it influences yield, grades and cost of production.

If then we ask the question, "Why do we prune?" our answer is that fundamentally we prune to get more fruit and better fruit, to increase quantity and quality. At this point it may be objected by some that we also prune to secure a certain shaped tree. That, however, is a matter of training, and pruning should not be confused with training. Training has to do with the shaping of trees, with making them assume one form or another.

We train trees with open or close centers; with round, spreading or flat tops; with many or few scaffold limbs; with high or low heads. Training does not have to do directly with the functioning, with the behavior, of the tree. A tree trained with an open center may be much better adapted to a certain soil, a certain slope and a certain amount of humidity than a close centered tree of the same variety. The reverse may be true of the same variety under an entirely different set of conditions.

But whether in training we secure a good shape or a poor one for a certain variety, under our conditions, training has to do primarily with form. On the other hand we prune trees to so modify, to so control, their fruit habits that larger and more regular crops of better fruit will be borne. In other words, we prune to modify function.

Broadly speaking, we can control the fruiting habit of fruit trees only in so far as we can control their machinery for fruit production. The flower is usually regarded as the mechanism that the plant constructs for the ultimate purpose of fruit and seed formation, but flower formation depends, to a very large extent, upon the number of flower spurs, or, as we call them, "fruit spurs," and upon their behavior.

This is practically the equivalent of saying that the fruit spur is the real machine through the operation of which fruit is manufactured. Possibly exception may be taken to this in the case of bearing on one-year-old wood, but this rather extraordinary habit of some varieties of apples and pears is not general enough to seriously conflict with the statements made. At any rate, the fruit spur is the mechanism that the tree usually employs in its work of fruit bearing.

Without doubt many factors influence the initial development and the later health and vigor and regularity of functioning of fruit spurs. Indeed there are good reasons to believe that most of our orchard practices, such as cultivation, fertilization, spraying, the use of cover crops, etc., influence them either directly or indirectly. Pruning, however, has generally been looked upon as a practice through which we directly influence fruit spurs. All fruit growers know that they can prune them out and thus reduce their number. Many believe that by this or that pruning practice they can stimulate their formation or possibly increase their vigar or lengthen or shorten their life, etc.; and these beliefs are founded upon careful observation and experience.

The trees in some orchards are full of fruit spurs; those of other orchards are relatively much fewer in number. The individual fruit spurs in some orchards

average an apple or a pear once every two or three years; those in other orchards average a fruit only once in four or five or six or eight or even ten years. The average length of life of the fruit spur in some trees may be three or four years; in others thirty or forty years. These are extremes, of course, but they represent facts regarding the fruit manufacturing machinery in our orchards.

The health, vigor and longevity of the fruit spur depend upon its food and moisture supply and upon the amount of sunlight that it receives. It is possible for a tree to be so situated that there is not enough moisture and food present to supply properly all the spurs and their developing fruits. It is also possible for the upper and outer limbs to be so numerous and the growth they make so dense that many of the inner and lower branches, with their fruit spurs, receive insufficient light to keep them thrifty. Later these shaded spurs die off and the fruiting area of the tree is thereby reduced.

Under these circumstances judicious pruning would so limit the number of spurs that there would be food and moisture for all; and the branches would be so thinned that enough sunlight would filter through the outer and upper part of the tree to keep the remaining parts growing vigorously.

Though possibly a smaller percentage of fruit growers under-prune than over-prune, too little pruning is without question the direct cause of small crops and inferior fruit in many orchards. It is not necessary to visit a large number of orchards in order to find evidence of too light pruning. Dead and dying fruit spurs are very common, especially on older trees. There may be loss of fruit spurs from dense shading in over-pruned trees, and there will, of course, be a certain loss from other perfectly legitimate causes such as occasional injuries incident to picking in very well-cared-for trees, but in general the dying out of many fruit spurs indicates too little pruning.

The practical question at once arises: "How much are we to prune?" From the very nature of the question no answer can be given which can be taken as a rule to be always followed. It is the principles which underlie tree growth and fruit production that determine amount of pruning. Only as these principles are applied to each individual problem as it arises—in other words, to each individual tree—can the right amount of pruning be done. From what has been said it is evident that proper pruning consists in the removal of just enough wood to afford the largest possible number of fruit spurs a good supply of light and food, and consequently keep them growing vigorously and fruiting regularly. A tendency on the part of the tree to produce water sprouts and other wood growth at the expense of fruit spurs indicates that two heavy pruning has already been done. Irregular bearing and dving out of fruit spurs indicates that too little pruning or pruning in the wrong part of the tree, or both, have been faults of recent years. The person who prunes should glance quickly over the tree, judge quickly and accurately of the balance (or lack of it) that exists between wood and fruit production, between vegetative growth and fruit-bearing surface, and then proceed to restore or maintain this balance. In its last analysis the question of amount of pruning becomes a question of judgment. Rules cannot be given, or if given they are almost worse than useless. They mislead as often, or more often, than they lead aright. Principles governing amount can be more or less thoroughly understood and then applied to individual cases. Principles are always the same.

#### QUERIES and ANSWERS

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.

Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

Nothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

Can anyone tell me how to grow gardenias? Mine have all cast their buds. I grow them in the palm house and feed well each week with nitrate of soda, alternating with liquid cow manure.—T. M. B.

The cause of your gardenias losing their buds is no doubt due to bad drainage. A palm house is also not a suitable place to grow these plants, but a rose house is ideal. You do not state whether you grow in pots, but pot or bench grown, perfect drainage is required and essential. From the daily syringing of the palms the gardenias probably get too much water. Worms also infest some soils very much. Try a watering with Vermine, after readjusting the drainage and remove into a sunny house at once. Syringe daily and repot when necessary, using a peaty soil. Do not feed with nitrate of soda. It will fetch the foliage off and kill the plants. A little top dressing of good loam and cow manure and a little bone dust is better; and an occasional watering with soot water.-R. W. F.

What can I grow in my palm house during summer, when we take the palms out on the lawns? It is 25 feet long and about 15 feet high and has two side benches.-T. M. B.

Celosia Castle Gould, which should be sown at once, schizanthus, and a few ferns also. But do not shade the former. Bouvardia Humboldtii and the double varieties are easily grown, and are nice for using in summer where indoor flowers other than roses are grown.-I. H. T.

Can I grow orchids so as to have a few in bloom each month of the year in a small house 20 by 12 feet, in which I can only maintain a temperature of 55 in winter?-C. A. L.

Orchids can be easily grown in a house such as C. A. L. describes. In Cattleyas, Percivaliana blooms in January and February, Schroederae in March, Mossiae in April and May, Dowiana and gigas June to August, labiata September to Christmas, and then Trianae follows. Also Oncidium varicosum, Laelia anceps, Miltonia Vexilaria, Dendrobium nobile, formusum, and many others which any good orchid dealer can advise on and supply.—M.

#### The Service Bureau National Association of Gardeners

Is maintained for the purpose of providing opportunities for efficient and ambitious men engaged in the profession of gardening. This department of the Association is at the disposal of those who may require the services of capable superintendents, gardeners or assistant gardeners. Address

M. C. EBEL, Sec'y,

National Association of Gardeners,

Madison, N. J.

### Cedar Acres Gladioli

"Bulbs That Bloom"

GLADIOLI of merit for the private grower especially. BOOKLET full of practical information free.

#### B. HAMMOND TRACY

Gladioli Specialist

BOX J

WENHAM, MASS.

#### ORNAMENTAL IRON

For Lawns and Gardens.

Chas. C. Force & Son.

LET US ESTIMATE ON YOUR WANTS.

Madison Iron Works, Madison, N. J.

#### MOONS

450 acres in Trees and Shrubs—over 2,200 kinds to choose from. These are grown wide apart, and in consequence develop into sturdy, well formed specimens so much desired for estate, street, and park use.

Send for catalog.

THE WM. H. MOON CO., Morrisville, Pa. Philadelphia Office: S. 12th St.

#### HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

D. HILL NURSERY CO.

Evergreen Specialists, Box 305 Dundee, Ill. Largest Growers in America,

### RHODODENDRON Carollana Species Clear Pink. Absolutely Hardy

Send for prices and full description, and Catalogs of the only large collection of Hardy Native Plants

Highlands Nursery | HARLAN P. KELSEY, Owner Boxford Nursery | Salem - Mass. Boxford Nursery 

GLADIOLUS BULBS

"Buy direct from the Introducers." Our special Illustrated List of 1914 Novelties and Standard Sorts describes Hyde Park (an early Shakespeare); Sunbeam (new Primulinus type); Schwaben (the Giant Yellow); Chicago White (very early), Iris (the only lavender), and our noted introductions, Princeps, Margaret, Mrs. Francis King and Jessie. The bulbe harvested on our Michigan farms are plump and healthy. VAUGHAN'S SEED STORE, 31-33 W. Randolph St., Chicago, and 43 Barclay St., New York. Call on us. 



### Plants and Trees From Florida

For Southern planting outdoors and for house decorations in the North

E have made a special study of this matter for 30 years and have achieved a success in growing beautiful plants and in delivering them in like beautiful condition to the most distant purchasers.

It takes special care and preparation to properly pack delicate palms, ferns, etc., to stand a trip of thousands of miles, but we do it—not just once in a while, but a good many times every workday. We issue a large catalog covering all our stock, having 17 special Departments, and send it free.

WE HAVE THE STOCK in immense variety, from all over the tropics, and are constantly adding to our variety.

Royal-Palm Nurseries REASONER BROS., Proprietors Oneco, Florida

#### NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists. John Young, secretary, 54 West 28th street, New York.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society. L. Merton Gage, secretary, South Natick, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 342 West 14th street, New York.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. Meets first Thursday every month, Horticultural Hall, Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Meets third Tuesday every month, Horti-cultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Meets second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls.

Meets at Poughkeepsie, N. Y., second Wednesday every month except May and June.

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. J. Meets first Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass. Meets second Tuesday every month.

The Garden Club of Michigan. Mrs. Edward H. Parker, secretary, 139 Seyburn avenue, Detroit, Mich.

The corresponding secretary will notify members of date and place of meetings.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Paterson Park. Baltimore, Md.

Meets second and fourth Monday every month, Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Meets monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th street and Columbus avenue, New York.

Lake Geneva Gardeners' and Foremen's Association

W. H. Griffits, secretary, Lake Geneva, Wis. Meets first and third Saturday every month, October to April; first Saturday every month, May to September, Horticultural Hall

Lenox Horticultural Society. G. H. Instone, secretary, Lenox, Mass. Meets first Saturday every month.

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary. Meets first Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Meets fourth Friday every month, Mon-mouth Boat Club, Red Bank, N. J.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette street.

Meets first Monday every month, Montreal Florists Exchange.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J.

Meets at Madison, N. J., second Wednesday every month, except July and August,

Nassau County Horticultural Society. Ernest Westlake, secretary, Glen Cove, N. Y.
Meets second Wednesday every month,
Pembroke Hall, Glen Cove, N. Y., 6 p. m.

New Bedford Horticultural Society. Jeremiah M. Taber, secretary. Meets first Monday every month.

New Jersey Floricultural Society.
Geo. W. Strange, secretary, 216 Main street.
Orange, N. J.
Meets first Monday every month, Jr. O.
W. A. M. Hall, Orange, N. J., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London, Conn.

Meets second Thursday every month, 38 Main street, New London, Conn.

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Meets second and fourth Tuesday every

New York Florist Club. John Young, secretary, 54 W. 28th street, New York.

Meets second Monday every month, Grand Opera House.

North Shore Horticultural Society. Jas. Slater, secretary, Manchester, Mass. Meets first and third Fridays every

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill.

North Westchester County Horticultural and Agricultural Society. M. J. O'Brien, secretary, Mt. Kisco, N. Y. Meets third Thursday every month, except June, July and August, at 8 p. m.; December, January and February, 3 p. m., Odd Fellows Hall, Mt. Kisco.

Oyster Bay Horticultural Society. Fred Kirkham, secretary, Glen Head, N. Y. Meets fourth Friday every month, Board of Trade, Oyster Bay, N. Y., 8 p. m.

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 711 Westbank Bldg.

Meets first Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, 497 Bradford street, Pasadena, Cal.

Meets first and fourth Friday every month.

Paterson Floricultural Society. Sebastian Hubschmitt, secretary, 61 Seventh avenue, Paterson, N. J.

Meets first Tuesday every month, Romaine Building, 8 p. m.

Pennsylvania Horticultural Society. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut street, Paterson, N. J. Meets first and last Friday every month.

Working Man's Institute, Madison avenue, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets first Tuesday every month, Horti-cultural Hall, Philadelphia, Pa., 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. Meets first Thursday every month, Fort Pitt Hotel, Pittsburgh, Pa.

Rhode Island Horticultural Society. A. C. Miller, secretary, 7 Irving avenue, Providence, R. I.

Meets third Wednesday every month, Providence Public Library, 8 p. m.

Shelter Island Horticultural and Agricultural Society. Fred Kirkham, secretary, Shelter Island,

N. Y.

Meets first and third Thursdays every month.

Southampton Horticultural Society. William McLeod, secretary. Meets first Thursday every month, Memorial Hall, Southampton, N. Y.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarytown, N. Y. Meets last Tuesday every month, except December, Corporation Building, Tarrytown, N. Y., 7:30 p. m. Annual meeting last Thursday in December.

Tuxedo Horticultural Society.
Thomas Wilson, secretary, Tuxedo Park. N. Y.

Meets first Wednesday every month, Parish House, Tuxedo Park.

Washington, D. C., Florist Club. Meets first Friday every month, City Hall. J. L. Mayberry, secretary, Washington D. C.

Meets first Monday every month.

Westchester and Fairfield Horticultural

Society.

J. B. McArdle, secretary, Greenwich, Conn Meets second Friday every month, Doran's Hall, Greenwich, Conn., 8 p. m.

Yonkers Horticultural Society. Thos. Mahoney, secretary, Yonkers, N. Y. Meets first Friday every month, Hollywood Inn, Yonkers, N. Y., 8 p. m.

#### GARDENERS DIARY

American Institute, New York. Dahlia show. September 22-24. Chrysanthemum show. November 4-6.

American Paeony Society. Annual Paeony show, American Art Institute, Chicago, Ill., June 12-13.

American Sweet Pea Society. Sweet Pea Show, American Museum of Natural History, June 27 and 28.

Elberon Horticultural Society. Chrysauthemum show, Asbury Park, N. J., No vember 3, 4, 5.

Lancaster County Florists' Club, Lancaster, Pa. Fall show, November 5-7.

Lenox Horticultural Society, Lenox, Mass. Summer Show, July 22 and 23. Fall Show, October 22 and 23.

Massachusetts Horticultural Society, 11orticultural Hall, Boston, Mass. Rhododen dron show, June 6-7. Peony show, June 13-14. Rose show, June 20-21. Sweet pea show, July 11-12. Gladiolus show, August 8-9. Dahlia show, September 12-13. Fruit and vegetable show, October 3-4. Chrysauthemum show. November 5-8.

Monmouth County Horticultural Society. Fall Show, Red Bank, N. J., October 28 and 29.

Morris County Gardeners' and Florists' Club. Fall show, Madison, N. J., October

Nassau County Horticultural Society, Glen Cove, N. Y. Rose show, June 9. Dahlia show, October 6. Chrysanthemum show, October 29, 30.

New Jersey Floricultural Society. Sweet Pea Show, Orange, N. J., July and fruit show, October -. Dahlia

Newport Horticultural Society, Newport, R. I. June Show, June 24 and 25. Summer Show, August 12 and 13.

Oyster Bay Horticultural Society, Oyster Bay, N. Y. Summer show, June 18. Dahlia show, September 30-October I. Chrysanthemum show, October 30.

Royal Horticultural Society, London, England, Spring Show, Chelsen, May 19-21: Summer Show, Holland House, June 30. July 1-2.

Society of American Florists. Out-door exhibition Boston, Mass., Augst 18-21.

Westchester and Fairfield Horticultural Society. Summer show, Portchester, N. Y., June 19-20. Fall show, New Rochelle, N. Y.

#### THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

The members of the Westchester and Fairfield Horticultural Society turned out in large numbers to attend the regular monthly meeting of the society, held in their rooms in Doran's Hall, Greenwich Conn., Friday evening, May 8 President

### A Bright New Book of 182 Pages for 1914

Telling the Plain Truth about BURPEE-QUALITY SEEDS, is mailed Free of Cost to Gardeners everywhere upon Application to W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia

Robert Williamson presiding. Considerable James Stuart was also awarded a C. C. for business of importance was transacted, a splendid pair of Calceolaria plants, as was Five new members were elected and one proposition for membership was received. Both Summer and Fall Show Committees made favorable reports. Letters were read from business houses and other friends of the society offering prizes for the premium lists of both exhibitions.

A letter from the secretary of the National Association of Gardeners of America was read, informing the members of the society of the proceedings of the meeting recently held by the Executive Committee of the N. A. G. outlining the policies of the contemplated movement regarding the cooperation of the local societies with the N. A. G. The co-operative movement is now taking more comprehensive shape, and, owing to lack of time, it was deemed wise available to give the matter the serious consideration that such a momentous question deserves

President Williamson then introduced the speaker for the evening, Mr. John K. M. L. Farquhar, of Boston, Mass., who came prepared to deliver his lecture on "Gardens." Before the lecture Mr. Farquhar gave a very interesting talk on the advancement of horticulture in America, giving some interesting statistics regarding importations of horticultural stock, etc. He also called the attention of those present to the scarcity of really good men who are qualified to fill the important positions that this very advancement in horticulture in America has created, and the speaker expressed the hope that the profession of gardening would be. and continue to be, on the level of other professions and callings requiring deep thought and executive ability, inasmuch as the expenditure of large sums of money by the owners of private estates was for pleasure, and not of necessity. There is every reason why the gardeners should endeavor to make these estates a source of enjoyment, and not a care, which is very often the case. We think that when the gardeners are willing and able to give their employers the results that they have a right to expect, there will be a great deal less talk about their employers being "cheap skates."

The lecture by Mr. Farqubar, illustrated by colored views projected on a screen, was very interesting indeed, and dealt largely with "Italian gardens" of different periods, so that today the European ideas with the American modifications and the addition of more flowering plants in the scheme, give results greatly to be desired. The lecturer is eminently qualified to give such a lecture, as he is an expert with the camera, and has visited personally many times the scenes depicted

A rising vote of thanks was tendered the speaker, whom we shall always be pleased to have with us.

A large and very fine display was on the exhibition tables, a feature of which was the magnificent display of sweet pers of the Spencer type, shown by Adam and Thomas Ryan. We doubt whether finer flowers or longer or heavier stems could be found anywhere. Both exhibitors were awarded a well merited cultural certificate.

Wm. Graham for a magnificent vase of Mrs. Russell roses. The judges also made the following awards to the other exhibitors: A. Kirkpatrick, Cattleya Schroderae, highly commended; Wm. Graham, highly commended for vase of Antirrhinum; the same to John Conroy for a fine vase of assorted colors of Antirrhinum, and a vote of thanks to the following:

A. Whitelaw, for a collection of Tulips; Jas. Linane, for Calceolarias and Gloxinias; W. H. Watermoueki, vase of Carnations "Brooklyn"; P. W. Popp, for Laelia purpurata; Thos. Ryan, for vase of Gladiolus; Mr. McAllister, for Trilliums and hardy shrubs; Paul Dwenger, for cut blooms night

blooming Cereus.

A feature of the next meeting, to be held to lay the matter on the table for the next June 12, will be the competition of the meeting, when there would be more time gardeners' assistants for center pieces, composed of outdoor flowers and foliage. Michell silver and bronze medals will be awarded to the winners of first and second honors. An interesting display is anticipated. Don't forget the dates of the Summer Show, June 19 and 20, at Portchester, N. Y. An attractive schedule will be issued shortly. P. W. POPP.

#### NEW BEDFORD HORTICULTURAL SOCIETY.

The regular monthly meeting of the New Bedford Horticultural Society was held in Library Hall Monday evening, April 6, President Roy presiding. An unusually large number was present, the amateur portion of the society being well represented. B. Hammond Tracy, of Wenham, was the drawing eard, and his description of varieties, and word pictures of the possibilities

### THEANDORRAWAY

of handling Evergreens is to transplant, transplant, again and yet again. This insures success, and Andorra's Evergreens can be had in sizes that immediately complete the picture.

See Andorra the last week of May, when our collection of thirty thousand Rhododendrons is in bloom a most gorgeous mass of color.

See Andorra! A great gallery of planted pictures. If you cannot, write us; we are ready to counsel and suggest.

ANDORRA NURSERIES Wm. Warner Harper, Proprietor
Box O, Chestnut Hill, Philadelphia, Pa.



decorations or hall exhibitions created a lively interest in this wonderfully useful flower, which no doubt will increase the exhibit of this flower at our fall show. lively discussion followed concerning the relative value of stable manure and the various commercial fertilizers in the culture of gladiolii. W. F. TURNER.

#### NEW JERSEY FLORICULTURAL SOCIETY.

The regular monthly meeting of the New Jersey Floricultural Society was held on Monday evening, May 4, 1914, in the Jr. O. U. A. M. Hall, Main and Park streets. Orange, N. J. President Edwin Thomas in the chair and eighteen members present.

The society decided to hold a rose night on Monday, June 1, and an exhibition of sweet peas on Monday, June 6.

Schedules are being drawn up for the ninth annual dahlia, gladiolus and vegetable show, to be held October 5, 1914. Schedules may be had from the secretary on application any time after June 1, 1914. GEO, W. STRANGE.

#### CONNECTICUT HORTICULTURAL SOCIETY.

The regular meeting of the society was held in the County Building, Hartford, on the evening of May 8, with President John F. Huss in the chair. The pansy was on our programme for this meeting, and John C. Willard, of Wethersfield, one of our amateur members, exhibited about 200 blossoms from some twenty varieties. Mr. Louis Chauvy also exhibited a similar number of blooms and varieties. Our president made an excellent exhibit of hardy shrubs: Magnolia Stellata, Magnolia Conspiqua, Forsthia Viridisima, Derca Palustris, Amelan chia, Arabis Albida, Arabis Alpina Compacta, Arabis Rosea, Arabis Alpina flora plena, Primula Cashmeriana; also Viola Cornuta Papileo, Viola Cornuta Gracilis, Viola Cornuta Alba, and Viola Cornuta Lutea. One exhibit of pansies was artistically arranged on white blotters, and the other on yellow paper, the combination having a charming effect. John Gerard, an old pansy expert; Niel Nelson and George B. Baker were appointed by the chair to judge the exhibits, and each exhibit was awarded a first-class certificate. Mr. Chauvy also displayed a plate of very fine mushrooms. President Huss gave an instructive and interesting talk on his exhibit of shrubs and pansies, followed by Mr. Gerard, who dilated on the beauty of the pansy and elucidated on the art of judging this marvelously colored gem of flowers. The secretary read an article in the GARDENERS' CHRONICLE OF America, entitled: "Recent Progress in Hardy Garden Roses, by Arthur Herring-ton." The meeting was well attended and thoroughly enjoyed by all. The annual Dahlia Show will be held on September 23 and 24, this year, a little later than usual: but we hope to make it the best ever.

ALFRED DIXON, Secretary. Wethersfield, Conn., May 11, 1914.

#### ELBERON (N. J.) HORTICULTURAL SOCIETY.

The Elberon Horticultural Society held its regular monthly meeting on May 4. There was a large attendance, and two new

of the gladiolii for garden effects, home plate was awarded to Charles Hurn for an excellent vase of Radiance Roses. Also a cultural certificate to George Masson for a beautiful vase of Anthrammum Buxton's At the next regular meeting on some rink. 1, William A. Sperling, of the him of Stumpp & Walter Company, has promised to give an address on Tulips. The schedule of the Fall snow to be held in Ashmy Park, November 5-45, can be had on application to the secretary.

WILLIAM BRYAN.

#### THE HORTICULTURAL SOCIETY OF NEW YORK.

The monthly meeting of this society was held in the Museum building of the New York Botameal Garden, Bronx Park, m co. operation with the Garden, on May 9 and 10. The exhibition was a small one, there being ten classes, eight of which were for cut flowers, and two for plants; the latter for non-commercial growers, and called for six pots of Pelargoniums and six pots of Calceolarias. In each one the only exhibitor was James Stuart, gardener to Mrs. F. A. Constable, Mamaroneck, N. Y., who was awarded first prize in each case. His Calceolarias were exceedingly handsome, being quite 2 feet in diameter, and models of skillful cultivation. The same must be said regarding the regal and fancy Pelargoniums; these two exhibits formed a central attraction of the show.

Joseph A. Manda was the only exhibitor of orchids; and William Tricker, of Arlington, N. J., staged a vase of hybrid Nymphæ as of the Mrs. Woodrow Wilson per-

petual flowering type.

James Stuart also had an exhibit of a new Viola, which is thought highly of for summer blooming. A non-competitive exhibit of Sweet Peas of very great merit came from Miss E. V. Cockroft (gardener, Adam Patterson), Saugatuck, Conn. There were also a few exhibits from private sources comprising spring flowering ornamental shrubs and a very notable collection of alpine plants from a private garden at Tuxedo.

#### THE AMERICAN PEONY SHOW.

Representatives of the American Peony Society, Horticultural Society, of Chicago, and the Chicago Florists' Club, held a meeting at the Hotel Sherman, Chicago, May 14, to complete arrangements for the great annual exhibition of the American Peony Society, which will be held in Chicago this year under the auspices of the above or ganizations. Those in attendance included: William A. Peterson, of the Peterson Nursery; Carl Cropp, of Vaughan's Seed Store; Arnold Ringier, of the W. W. Barn ard Company; Thomas Wallis and M. Barker. The Art Institute was selected for the exhibition, which will be held June 12 13, this date being subject to change as weather conditions affect the local crop of peony flowers, making it earlier or later. Many experts will show their choicest novelties and standard sorts in their best form at the coming exhibition, which from all advance information obtainable will be the largest and most complete of its kind ever held in this or any other country. most successful growers of peonies will tell about their methods in meetings to be held in connection with the exhibition.

C. W. Johnson, 2226 Fairfax avenue, Morgan Park, Ill., was appointed manager members were elected. A cultural certifi of the exhibition, and all inquiries referring

#### **SPRAYING for GROUND CROPS**

Use the one best, Vreeland's

#### "ELECTRO" ARSENATE of LEAD POWDER not powdered)

Mixes easier, sticks better, kills quicker, and has Mixes easier, sticks Detter, king quicker, and mas highest quality and efficiency. Always the same. Full directions on every package. Used wet or dry. Will not injure the most delicate foliage. Also spray with Vreeland's

#### "Electro" Bordo-Lead Mixture

A sure and safe killer for bugs, and early and late blight. Always ready for use. No grit or lumps. Highest amount of active copper. Prohealth and stimulates growth. Anof "Electro" Arsenate of Lead and Bordeaux mixture.

Write today for Manual of Successful Potato Culture

B. G. PRATT CO., 50 Church St., NEW YORK Mfrs of SCALECIDE and sole distributors for the world of Vreeland's "Electro" Spray Chemicals.

to premium list, prizes, etc., should be addressed to him.

M. BARKER, Secretary Pro Tem.

#### TUXEDO HORTICULTURAL SOCIETY.

The usual monthly meeting of the Tuxedo Horticultural Society was held in the Parish House on May 13, President David Mc-Intosh in the chair. The Executive Committee reported the schedule for the Fall Show in progress, and that special prizes had been offered from the following firms: Messrs, C. H. Totty, Bon Arbor Chemical Co., Scott Brothers, Wm. F. McCord & Co., Weeber & Don. Burnett Brothers, Alphano Humus Co., A. N. Pierson, Inc., J. M. Thorburn Co., John Wilk, Julius Roehrs Co., and Henry Dreer. We expect to have the preliminary schedule out by the middle of We had as our guest Mr. Wm. Tricker, Arlington, N. J., who entertained us to a very interesting talk on the culture of water lilies. Two new members were elected to membership, Mr. Wm, Muir and Henry Gibson.

The society held its ladies' evening on April 16, when there were present over one hundred gardeners and their wives and friends. They had a very nice entertainment. Al. Baker, ventriloquist, Thomas Dobson, humorist, and George Leonard, Dobson, humorist, and George Leonard, pianist, from New York, kept the company well entertained with their funny stories. S. H. Chaplin sang a solo which was well received. The society's annual ball will be held in Tuxedo Town Hall on Wednesday, THOS, WILSON, May 27.

Secretary.

#### E. A. LIPPMAN GREENHOUSE SHADING

No. 6 High Street, Morristown, N. J.

A FTER many years' experience in Greenhouse work, with Lord & Burnham Company, in the glazing and painting depart ment. I am convinced that what is most needed in this line is a good shading, and I am pleased to advise von that I be when I am sure you will find to be just what you are looking for looking for This shading is beneficial to the painted wood,

This shading is beneficial to the painted wood, as it does not content by gasoline or napithal which would district the point. In a librion, it is beneficial to the 2 isstance for your William this beneficial to the 2 isstance for your William that when the shading is removed the glass retains its former tradition.

As to its application the issua very asymmetric. It can be either private on or put in with a set of birst. For real wood week, however, I would recommend their read a soft built.

As ther advant, so if I is shiring a that when its ne longer in educt, if can be removed without any difficulty, leaving the firm a better stated, with its origit of II is an education, in three chards hight given the fit blue it pure white. When ordering 1 yielly near on the color desired, I trust flight you will knick have it even in doubt whatever but that you will continue its

Mention the Gare of Chrotiele when you write

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection. We can prove it.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55 5 lb. package making 150 gallons, exp. extra 1.80

25 lb. package making 750 gallons, exp. extra 6.25

50 lb. package making 1,500 gallons, exp. exti 100 lb. package making 3,000 gallons, extra 12.50 exp. extra 20.00

Barrels from 250 to 300 lbs., 18c. per lb.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon. 1½ gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

#### BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.

2000 millioning 1888, at a formation and millioning millioning is contract. It areas it as an it of any again

### MR. GARDENER:

### Let That Tree Die, and You Will Never See It Replaced

YOU KNOW how long it has taken that tree to attain those stately proportions.

YOU KNOW how irreparable the loss should it die.

YOU KNOW how imminent is the danger from insects and fungi.

YOU KNOW how devitalising, how unsightly, and how difficult to reach is that dead wood.

YOU KNOW how surely fatal are those neglected cavities—neglected decaying stumps, neglected wounds, neglected borer holes are the causes.

Then Why Wait Longer? Time Is Precious. CALL US IN

WE HAVE the KNOWLEDGE, the EXPERI-ENCE, the MEN, the TOOLS.

#### JOHN T. WITHERS Inc.

Landscape Architect and Forester

1 Montgomery St.

Jersey City, N. J.

OSES, Ampelopsis Veitchii, Clematis, Japanese Maples. Boxwood, all in pots and ready to ship.

Specimen Evergreens 6 to 8 ft. high with large Ball and Burlapped. 15 Cars nursery grown Maximum Rhododendrons for immediate shipment.

Write for Prices

### International Nurseries, Inc.

1905 West Farms Road, New York City

PHONE 4028 TREMONT.

and the state of t

By an Unusual Arrangement with the Publishers We Offer to Our Readers on Special Easy Terms

### BAILEY'S NEW

Everything
Newly Written
Up To Date
Beautifully
Illustrated

### Standard Cyclopedia of Horticulture

THE new Standard Cyclopedia of Horticulture has been freshly written in the light of the most recent research and experience. It is not merely an ordinary revision or corrected edition of the old Cyclopedia, but it is a new work from start to finish with enlarged boundaries geographically and practic-

ally; it supersedes and displaces all previous editions or reprints of every kind whatsoever.

It is the fullest, the newest, the most authoritative of all works of its kind and constitutes the most conscientious attempt that has ever been made to compress the whole story of our horticultural thought, learning and achievement into one set of books. The owner of the Standard Cyclopedia of Horticulture will have at hand in this work a means of quickly satisfying his need for authoritative information. It is both an Encyclopedia and a Manual, for with the aid of its Synopsis and Key, amateur and professional alike may quickly identify any plant, shrub or fruit contained within the set, and then receive expert instructions for its cultivation.

Write for 16 Page Prospectus Containing Complete Description and our offer :: :: To

Subscription Department,
GARDENERS' CHRONICLE OF AMERICA,
Madison, N. J.



IMEMEMEMEKEKEKEKEKEKEKEKEMEMEMEMEMEKEKEKEKEKEK

### MRS. FRENCH VANDERBILT'S HOUSES AT NEWPORT

IN 1911 we crected the house directly opposite the work-room entrance. Last Spring the wing house at the right was added, making an L-shaped layout as attractive as it is practical. The gardener, Daniel Hay, says that the wall yent give ample ventilation for his purposes.

There are some gardeners, however, who want

direct side ventilation but hesitate in demanding it because it detracts from the look of a curved eave house. If you are such a one, forget it, as we have solved the side ventilation problem most satisfactorily.

If you are thinking of building, it's a thing you ought to know. We will include with the answer

to your letter, one of our catalogs.

NEW YORK 1170 Broadway Hitchings and Company

<u>wewewememememememememememememememe</u>

PHILADELPHIA 40 S. 15th St. BOSTON, 49 Federal St.

FACTORY, Elizabeth, New Jersey.

### **MONTBRETIAS**

HARDY Autumn-flowering bulbous plants that are becoming more popular every year. One of the best flowers for Fall cutting. They should be planted in groups and left undisturbed.

Bouquet Parfait-Vermilion with yellow center.

Crocosmaeflora-Large, bright orange, tinted scarlet.

Drap d'Or-Orange yellow.

Eldorado-Dark yellow.

Etoile de Feu-Bright vermilion and scarlet. Large flowers.

Gerbe d'Or-Golden yellow.

Pottsii-Orange and scarlet. Free flowering.

Rayon d'Or-Ochre yellow and brown.

Price \$1.50 per 100

MATERIAL TO THE CO. . NOTE NO DESCRIPTION OF STREET

minimum in the color of the color

\$12.00 per 1000

W. E. MARSHALL & CO. SEEDS BULBS PLANTS 166 West 23d Street, New York

### **BOBBINK & ATKINS**

WORLD'S CHOICEST NURSERY AND GREENHOUSE PRODUCTS

#### SPRING PLANTING

In our 300 Acres of highly cultivated Nursery Land we are growing Nursery Products for everyhody and suitable for all parts of the country. We shall be glad to have intending purchasers visit our Nursery and inspect the quality of stock we grow, or submit their lists of wants for prices.

THE FOLLOWING PLANTS FOR OUTDOOR PLANTING, INTERIOR AND EXTERIOR DECORATIONS ARE AMONG OUR SPECIALTIES.

ROSES. We have Rose Plants in pots for immediate shipment.

HARDY OLD-FASHIONED FLOWERS, PEONIES and IRIS. Several acres of our Nursery are exclusively devoted to their culture.

HEDGE PLANTS. We grow a large quantity of California Privet, Berberis and other Hedge Plants.

EVERGREENS, CONIFERS and PINES. Many acres of our Nursery are planted with them. All are balled and burlapped and have a splendid root system.

TRAINED, DWARF and ORDINARY FRUIT TREES and SMALL FRUITS. We grow these for Fruit Gardens and Orchards.

BEDDING PLANTS. We are growing a complete collection in large quantities. Submit list for quotation.

RHODODENRONS, KALMIAS and other Large Leaved Evergreens. We are growing in large quantities.

BOXWOOD. We grow thousands of plants in many shapes and sizes.

BAYTREES, PALMS and other plants for conservatories. Interior and Exterior decorations.

HARDY TRAILING and CLIMBING VINES. We grow them for every place and purpose.

PLANT TUBS. WINDOW BOXES. ENGLISH GARDEN FURNITURE and RUSTIC WORK. We manufacture all shapes and sizes.

OUR WONDERFUL NEW HYBRID GIANT FLOWERING MARSH-MALLOW. Everybody should be interested in this new, old-fashioned flower. It is perfectly hardy and will grow everywhere OUR NEW ILLUSTRATED GENERAL CATALOG No. 45 describes our products; mailed upon request.

NURSERYMEN, FLORISTS AND PLANTERS

. Данжизунан потомнения в станика поточного применения в стание поточного применения в данжения в применения в д

RUTHERFORD, N. J.

# Boddington's Quality Sweet Peas

For the forthcoming 1914 Summer Exhibition of the American Sweet Pea Society, to be held in the American Museum of Natural History, New York City, June 27th and 28th, we take pleasure in again offering our

### Challenge Silver Cup Value, \$50

For a Collection of Sweet Peas, 25 varieties, not less than 25 stems to a vase, to be shown with Sweet Pea Foliage only. To be won twice by the same exhibitor.

We will also award to the winner of this cup (each time won) a cash prize of \$25; \$15 second, and \$10 third prize.

If collections are wanted for exhibition purposes, we shall be glad to make suggestions.

### Arthur T. Boddington

Seedsman

342 West 14th Street, New York City

# Gardeners All Over the World Use

APHINE, for spraying against all sap-sucking insects, such as aphis, red spider, thrips, mealy bug and soft scale; and for cleansing palms and decorative stock generally.

NIKOTIANA, for fumigating, a nicotine solution which does not fill the house with smoke as does tobacco paper or dust. It is vaporized in pans over small lamps, or by painting the steam pipes.

FUNGINE, to control mildew, rust or bench rot in the greenhouse, a spraying material; an infallible remedy. It does not stain foliage as Bordeaux or lime and sulphur, but cleanses it.

VERMINE, to rid the greenhouse soil of eel worm, root maggots and other soil vermin, will be found most effective. Used according to directions it is not injurious to vegetation.

# For Out Door Spraying of Trees, Shrubs and Hardy Plants

SCALINE, an oil and sulphur composition—three in one—an insecticide, fungicide and scalicide combined, destroys San Jose, Oyster Shell and other scale, red spider, larva of the aphis and locust borer. Now is the time to spray to protect your trees and shrubs against the ravages of the various insect pests.

> Get in the habit of using our products and you will use no other For Sale by all Seedsmen

# Aphine Manufacturing Company

Manufacturers of Agricultural Chemicals

MADISON, N. J.

BRITISH DISTRIBUTORS: British and American Fertilizer Co. Leith Offices-Liverpool, England.



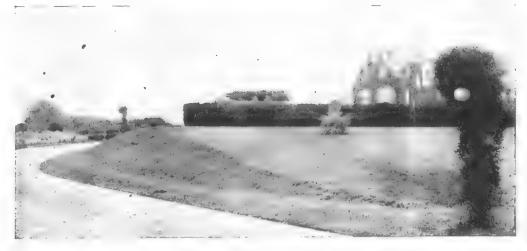
H I RI care two strongs, forther care size care or care care and switch the care size care of the switch the care of the care

Carrying the connection the father, to extra great cases held that converses to the hold of each of the connection of the connection  $\sigma$ 

#### **GREENHOUSES** U-BAR

PIERSON U-BAR CO

ONE MADISON AVE. NEW YORK CANADIAN OFFICE TO PHILLIPS PLACE MONTREAL



Here's a grass test. Alphano Humus was spread on the terraced part, and the customary barnvard manure on the rest. The Alphano being in powdered form, was taked in. The manure being it will trained and tall of litter, eventually und to be taked off, earlying along much of its worth. There days before this photograph was refund, all the grass was cut. The rest marked contrast in the height and evident depth of color of the grass between the two portions, tells its own story of the real worth of Alphano Humus.

# Reasons for Our Slow Deliveries on Early Spring Orders of ALPHANO HUMUS A Frank Statement

Lit us tell you exactly what the uncontrollable conditions were, under which we have been laboring; and then we will leave it entirely to your sense of fairness if we haven't done all possible, under the circumstances.

For ten years our salesmen, personally, have been selling large quantities of this Alphano, but last season was practically our first direct advertising of it. The way the responses came and orders followed, it was abundantly evident that we had a Plant Food and Soil Builder that was welcomed and

We sold bags, tons, carloads, and barge loads of it, as never before. Last Winter we figured that this season, a large number of these satisfied customers would come back for 1,5 ore, and that also many of their friends learning of the results secured by using Alphano on lawns, shrubs, trees, and gardening in general, would likewise become customers; so based on this we spent many thousands of dollars increasing our facilities so that deliveries could be made promptly.

As sanguine as we were we frankly admit having under-estimated the amount of the orders that developed.

To add to our embarrassment, the late snows and cold weather made people think Spring was never coming, and so they put off ordering three to four weeks later than usual. Then when the first warm days did come, in came the rush orders. As a result we but naturally became way behind on shipments. In the face of all this we received

In the face of all this we received some pretty stiff letters and rather dynamic phone calls demanding explanations.

To show our absolute good faith, we voluntarily returned a good many

what we were struggling against, felt we were negligent. Today, June 1st, our reports show that we have caught up on deliveries and although the plant is working full tilt, and overtime, our shipments from now will be prompt.

Those of you who wanted the Alphano for gardening, and it came too late to spade directly in the soil, will find it works wonders when dug around the plants after they are up two or three inches.

As for shrubs, now is as good a time as any to use it. When it comes to lawns, any time is a good time. Put it on now and it will prevent the soil from baking, and the grass from burning this Summer. It will induce a strong growth of fine, fibrous, dry weather-resisting roots. The Alphano absorbing and holding as it does such large quantities of moisture, further fortifies the grass against the coming hot sun and the drying winds. Being in powdered form the Alphano is easy to apply. Being odorless it's at all times free from objection. To apply now, cut the grass, spread on the Alphano, rake it in, and in two weeks' time you will be surprised at the results.

Our records show that during each month of June, July, August and September of last year, we sold more Alphano Humus for lawns than during any one of the Spring months. Let us know about how large your lawn is and we will advise how much you better order.

If you have your Alphano, use it at once. If you haven't any left for your lawns, shrubs, and garden

order some.

If you have never had any, and are interested, but still unconvinced of its merits, send for our book of CONVINCEMENT. It tells what it will do for you, by telling and showing what it has done for others.



\$12 a ten in bags -- \$8 by the carload in bulk. F. O. B. Alphano, N. J.

# ALPHANO HUMUS CO.

17G BATTERY PLACE, NEW YORK CITY

# 







# How Much Such a House Costs

WELL, roughly, we should say anywhere from but hold en—do you want a price on just the greenhouse alone; or with the masonry included? Are we to build the workroom or will you? Do you want our regular cast iron benches or those with slate sides and tile bottoms? Do you want continuous side SALES OFFICES.

ventilation, or will vars answer your purpose? Until we get the abswars to these questions you see how impossible vars for us to give you a price.

If y it don't want to write us the particulars and prefer to talk it or with us, then say when and where and we'll or there.

New York Boston,
42nd St. Balg. Tremont Bldg.
Chicago Ke action
Kocker; Bldg. Gran + Bldg.
Philadelphia
Franklin Bank Eldg. Cleveland
Franklin County Grant Street East.



FACTORIES.

Irvington, N. Y. Des Plaines, Ill.



THORBURN salesmen are on the road now booking orders on Bulbs for Fall delivery.

You will receive a postal from us a day or so before one calls.

If you have changed your address recently, please drop us a postal.

J. M. Thorburn & Co. 53 Barclay St., New York

# Before Placing Your Orders

for ROSE BUSHES, EVERGREENS, RHODODENDRONS, AZALEAS, ETC., pay us a visit and let us figure with you on your wants. We carry a complete line of all kinds of nursery stock.

## Our Seed Department

is fully equipped to quote you on the highest grade tested seeds. If you want the best, we supply it.

Let us send you a copy of our 1914 catalogue.

The Mac Niff Horticultural Co. 56 Vesey Street New York

# CHAS. H. TOTTY

# CHRYSANTHEMUMS ROSES CARNATIONS

Madison

New Jersey

# Pot-Grown Strawberry Plants

New and Standard Varieties

Any Quantity

Prices Right

# **READY NOW**

Send your order to-day

# W. F. McCORD COMPANY

Nurserymen and Seedsmen

TARRYTOWN, N. Y.

# Pot Grown Strawberry Plants

We can supply all leading and new varieties for immediate or later shipment in fine conditions.



W. E. Marshall & Co.

166 West 23rd St.

New York

# Gladiolus for Forcing

# AMERICA AND PRINCEPS



An exceptional offer of well ripened extra large high crown bulbs, 7 inches and over in circumference.

America, 50c. doz.; \$3.50 per 100 Princeps, 75c. doz.; \$5.00 per 100

## WEEBER $_{\mathtt{and}}$ DON

Seed Merchants and Growers 114 Chambers Street NEW YORK

# Potted Plants for Immediate Effects



For the seashore home, or the previously overlooked spot where immediate results are desirable, try these sturdy plants:

Japanese Kudzu, the most rapid growing perennial vine. "A foot a day." For porch or pergola Guaranteed true to name. Wichuraiana Roses, the runner with the glossy, green foliage and fragrant flowers in all

colors.

The French Gold Flower (Hypericum Moserianum) see illustration. A flower of great beauty, rich, golden-yellow flowers in profusion until September

Send for list of potgrown plants.

Thomas Meehan & Sons Germantown, Phila.

# GREENHOUSE PAINTING AND GLAZING

My many years' experience while engaged with the leading greenhouse builders, and my employing only first-class men, places me in position to undertake any new or old work which you may contemplate

Let me estimate on your work.

### FRANK TIDABACK

Greenhouse Painter and Glazier TARRYTOWN, N. Y.

# ORCHIDS

PORTUGUES - COMPONENTS - COMPONES - 1 OF MORE DEFINED BY THE STREET - STREET STREET

Freshly Imported

We have received and unpacked the following in fine condition: Cattleyas - Percivaliana, Gaskelliana, Speciosissima; Dendrobiums—Formosum, Nobile, Densiflorum, Schuitzii (novelty); Vandas—Coerulea, Batemannii, Imshootiana, Luzonica (novelty); Phalaenopsis—Amabilis, Schilleriana and Spothoglottis plicata. Many more to arrive.

Write for special list No. 55.

LAGER & HURRELL, Summit, N. J.

Дининия в в ведения в на ининов в ведения в на инининия до ведения в на принципального в ведениний в до до до

# Julius Roehrs Company Nurserymen and Florists

Headquarters for Orchids, Palms, Stove and Greenhouse Plants, Bay Trees and Box Trees, Laurus Cerasus, Aucubas, Cyclamen, Begonia Lorraine and Cincinnati, Evergreens, Decideous Trees and Shrubs.

RUTHERFORD, NEW JERSEY

# COMPETENT GARDENERS

If The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

I Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

**NEW YORK CITY** 

# Tree Owners and Tree Lovers

Will find much to interest and instruct in the

# NEW ILLUSTRATED MAGAZINE

Devoted to Arboriculture and Forestry.

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage. Published quarterly by

# THE FROST & BARTLETT COMPANY

26 Cortlandt St.

(Suite 212)

**NEW YORK** 

# Curiosity Killed a Cat"

That is a well-known old-time saying; but it does not apply to you, because YOU ARE NOT A CAT. It is safe for you, and for your wife and your children, to want to know what is to be found in the woods and the fields around you, in the swamps and meadows, the ponds and ditches. Do not hesitate to indulge in the JOY OF CURIOSITY. You are not a cat. You can satisfy the desire to know by

# THE GUIDE TO NATURE

It is ten cents a copy; one dollar a year.

**ADDRESS** 

ArcAdiA. Sound Beach, Conn.



# DREER'S POT-GROWN TRAWBERRY PLAN

The best varieties, both new and old, and best methods of planting to raise a full crop of strawberries next year are fully particu-

# Dreer's Mid-Summer Catalogue

Also Celery, Cabbage, and other vegetable plants. A select list of decorative plants, Palms, Ferns, etc.; Seeds of old-fashioned Hardy Perennials and other flowers for summer sowing. Seasonable Farm Seeds, etc.

Write today for a copy, FREE, and please mention this magazine.

HENRY A. DREER
714-716 CHESTNUT ST., PHILADELPHIA, PA.

# **BOBBINK & ATKINS**

WORLD'S CHOICEST NURSERY AND GREENHOUSE PRODUCTS

In our 300 acres of highly cultivated Nursery Land we are growing Nursery Products for everybody and suitable for all parts of the country. We shall be glad to have intending purchasers visit our Nursery and inspect the quality of stock we grow, or subunit their list of wants for prices.

THE FOLLOWING PLANTS FOR OUTDOOR PLANTING, INTERIOR AND EXTERIOR DECORATIONS ARE AMONG OUR SPECIALTIES. STRAWBERRIES. Potted and field-grown in all the leading varieties. We have many thousands of Strawberry plants and are in position to fill orders of any size. Ask for special list.

EVERGREENS, CONIFERS AND PINES. Many acres of Nursery are devoted to their cul-tivation. Urder now for August dollyony.

BOXWOOD. Everybody loves the aroma of old fashioned Box wood. We have thousands in many shapes and sizes.

BAY TREES. We are head-quarters for them. We carry at all times hundreds, and often-times during the year several thousands may be seen in our

PLANT TUBS, WINDOW BOXES AND ENGLISH GARDEN FURNITURE. We manu facture all shapes and sizes.

LAWN GRASS SEED. Our Rutherford Park Lawn Mixture has given satisfaction everywhere.

HYDRANGEA OTAKSA IN TUBS. We have many hundreds of Specimen Plants in bloom and built for Summer decorations, \$2.50, \$3.50, \$5.00 and \$7.50 each

LARGE-LEAVED EVER-GREENS, ENGLISH LAUREL and AUCUBAS for Summer dec-

PALMS AND DECORATIVE PLANTS. We have several acres of greenhouses in which we grow Palms, Ferns and a large collection of plants for interior and exterior decorations.

OUR NEW HYBRID GIANT-FLOWERING MARSHMALLOW. Everybody should be interested in this old tashoned flower. It will grow everywhere and when in bloom is the queen of all garden flowers, Order now for Autumn delivery.

ENGLISH IVY. We grow many thousands in trained forms and ordinary plants from 2 to 8 feet tall

PEONIES AND IRIS. We have a complete collection of them ready for September delivery.

OUR NEW ILLUSTRATED GENERAL CATALOG No. 45 describes our products; mailed upon request.

WE PLAN AND PLANT GROUNDS AND GARDENS EVERYWHERE WITH OUR "WORLD'S CHOICEST NURSERY AND GREENHOUSE PRODUCTS."

NURSERYMEN, FLORISTS AND PLANTERS

RUTHERFORD, N. J.

# Arthur T. Boddington

**SEEDSMAN** 

342 West 14th Street New York

rando to celado talenta freque paradonalmento e

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

# KENNEDY & HUNTER SEEDSMEN

Pot Grown Strawberry Plants Now Ready

All Standard Varieties \$3.50 per 100

156 West 34th Street One block from New York

"ONLY THE BEST"

# 

JOHN DAVEY Father of Tree Surgery

## THE NEXT STORM MAY DO THIS YOUR FINEST TREES Your trees may appear strong and healthy—and yet be so unsound If your trees

that the next storm will snap them off like the one shown here. need no attention you want to know it. If they do, you ought to know it. If you want real Tree Surgery, it must be Davey Tree Surgery. Expert examinations without charge. Representatives with credentials available everywhere. Write today for beautiful free book and letters from estate owners to whom our examinations have been a revelation.

whom our examinations have been a revelation.

THE DAVEY TREE EXPERT CO. Inc.

443 Elm Street, Kent, Ohio

Branches with telephone connections, New York, Ph.L. (Iphia, Chicago, Montreal, San Francisco



# The Contents---June, 1914

D 11: 1 F1 C 1		Ti 1 10	
Building the Flower Garden		The Gardeners' Co-operative Movement	52
By W. G. Gomersall	39	Circulation of Water in the Soil	
Transplanting Big Trees	42	By Maud De Witt Pearl	54
The Semi-Aquatic Irises By H. J. Moore	43	Success in Woodland Planting	
June By David S. Miller	43	By Arthur Smith	54
Perfect Days	43	Happy Thoughts	54
Georgian Court, Lakewood, N. J	44	Plant Life in Mexican Arid Regions	
The Children's Home Gardens		By Elmer Stearns	55
By Elizabeth Chase	45	Raising Orchids from Seeds	56
Growing Grapes in Pots By Percy E. Hicks	46	Spray Every Year for Perfect Fruit	57
A Confession By G. C. Watson	46		
		Queries and Answers	
The Happy Gardener By Alex. MacLellan	46	National Associations	59
The S. A. F. & O. H. Convention Garden .	46	Local Societies	59
A Visit to the Converse Estate, Marion, Mass.	47		60
Sun Warms Only Earth's Surface	47	Oyster Bay Horticultural Society	60
Editorials	48	Nassau County Horticultural Society	
The Important Man	48	Westchester & Fairfield Horticultural Society .	0 0
The Only Way	48		
The Summer Meeting, N. A. G	49	New London Horticultural Society	61
National Association Notes	49	Tuxedo Horticultural Society	61
Among the Gardeners	50	Tarrytown Horticultural Society	61
		D.I. M. J. D. GI	
Preliminary Schedule, 1915 New York Show	50	Rahway, N. J., Rose Show	01

# Pedigreed Pansy Seed

Pansy Seed secured from the best growers known to us after exhaustive tests.

#### FAMOUS NON PLUS ULTRA STRAIN Gigantic Size, Heavy Texture, Brilliant Colors

Our Non Plus Ultra Pansy is a mixture containing the largest, hand somest and most perfect varieties ever sent out. The beautiful coloring and variety of marking give a bod of these Punsis a most brilliant appearance. The seed has been saved from the greatest assortment of types, including only the best of Gant Cassiers, Bugnots, Trimardeaux and Gant English, French and German strains. Finest Mixed, pkt 15 cts. ½ oz. \$1.50, oz. \$6

## GIANT PANSIES

Separate Colors

Our strains of Giant Pausies are produced from specialists in Europe, who devoted their entire energies toward producing size, very heavy

texture and strong stems, which can be accomplished only by a selection of the lest plants for seed purposes, and therefore must not be tion of the lest plants for seed purposes, and therefore must no confounded with strains ofered by some seedsmen at lower prices.

Fire King.	Red and yellow, large	blown eye .	\$ 0.15	\$1,25	\$4.60	
Emperor W	illiam. Deep blue		.15	1.25	4,00	
Lord Beacon	isfield. Viol t. shaded	white	.15	1.50	5,00	
Light Blue.	White center		.10	1.00	3.50	
Light Blue			 .10	1.00	3,50	
Pres. Carno	b. Pure white petals;	deep blotch .	.15	1.25	4,00	
Purple			.10	1.00	3,50	
Pure Yellov	7		.10	1,00	3.50	
Snow-White			.10	1.00	3,50	
White. Dar	k eye		10	1.00	3,50	

#### PANSIES IN MIXTURE

		1' OZ.	()z.
Masterpiece, Superb new class of blotched Pansies, with large about 1965th undulated or carled			
Brilliant colors	\$0.15	\$2.00	\$7.00
Madame Perret. Early flow-ring, fragrant, espe-		11-2,1-11	914.1111
cially rich in red shades, large flowering		1,50	5.00

	ľkt.	I, oz.	()z.
Bugnot Strain. Large stained mixed	\$0.25	\$1,50	\$5,00
Cassier's Strain. All colors maxed	15	1 (8)	3,50
Odier, All colors mixed	15	1.00	3,00
Fine English Mixed	.05	.50	1.50



# GARDENERS' CHRONICLE

# OF AMERICA

DEVOTED TO THE SCIENCE OF FLORICULTURE AND HORTICULTURE

ADOPTED AS THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

Vol. XVIII. JUNE, 1914. No. 2.

# Building the Flower Garden

By W. G. Gomersall.

There is no garden picture so beautiful as that produced by a group or groups of hardy flowers and foliage. Yet try as one will to produce the best effects how often we have to admit that some of the most beautiful and effective flower pictures we have seen have been produced either by accident or without human careful forethought. Yet, because occasionally one has met with this accidental picttire, it does not follow that unskillful or careless planting will produce such results, far from it. To properly plant pictures of tree shrubbery or hardy flowering plants requires a knowledge of their habits, their flowering season, height, degree of hardiness, whether fall or spring is the best season to plant. Whether they are shade or sun loving plants, whether suitable for a dry or wet ground, and also it is important to know their suitability as a cut flower, and their color. Some plants are best adapted for a semiwild garden, others for edges of lakes and water courses and others form splendid subjects for the well kept lawn. It is among the rocky hills bordering the Hudson River that some of the most glorious Autumn pictures are seen to the best advantage.

The Wild Aster or Michaelmas daisies in lovely masses of lavender, lilac and purple splendor splashed with Golden Rod and the fiery Autumn tints of the Sumach toned and mellowed by the yellow leaves of the Sassafras and the rich red coloring of the dogwood. A bold rock standing majestically above this group has tempted a woodbine to raise its head above the purple mass and itself has put on that glorious orange scarlet tint with which the sun has clothed it and so make it a fit companion for such gorgeously arrayed company. What more beautiful picture could there be for the eyes to feast upon. But imagine the flowers changed to hollyhocks, Campanulas or gorgeous Phlox, and would not the picture lose its charm, or if the whole picture were transferred to a well kept lawn should we not realize the discord of the surroundings. The inharmonious settings to the picture would rob it of its charm.

In planting hardy herbaceous plants the adaptability of the surroundings to the character of the plants must be considered, where a corner of the grounds can be spared. Try a special setting for those hardy flowers that are of a semi-wild character. It may take a few years to grow the surroundings into that peaceful and restful character so that everything growing appears so adapted to its surroundings, that the hand of man is lost and only nature seems to have done the work.

In the formation of such a hardy garden, rocks are of great assistance. In many localities, however, rocks are not obtainable, but the evenness of the ground may be broken by sunken gardens using the excavated earth to

form mounds and slopes, the whole or part being screened from the general view with evergreens, Rhododendrons, Pines, Spruce, Boxwood, etc., or plants of such character as are adapted to the local climate conditions. These sunken or depressed gardens would in wind exposed places form splendid gardens for such tender plants as are difficult to grow exposed to the winter wind. The possibilities of such a garden, if entirely surrounded by Pines, dense growing deciduous shrubs and evergreens adapted to the locality, appeal to the imagination. Being separated and distinct from the other gardens, it would have a distinct character of its own. The entrance might be partially obscured and thus be a garden for seclusion and rest. In such a place would be found a home for choice Rhododendrons, Andromedas, Azaleas, Clethras Kalmias and Hollies, Osmanthus and even the laurels and Aucubas. While intermingled or in groups would be planted Cornus Florida, the white and red flowering, Pinus Mugho and Prinos Verticillata or deciduous holly and Euroymons Europeous, while on the top of the mound Rhus Glabra Laciniata or cut leaved Sumach. and Eunoymons Alatus and a cer ginnale against the background of Pines would be most beautiful, and here would grow in perfect harmony the Wild Asters Novol Anglica, and the Heleniums, Autumnale, Superbum and Pumilum. While on the sloping bank a mass of Hypericum Moserianum, Densiflora and Aenothera Youngii with Mahonia Aquafolia would be charming. Of course, the continuity of such a sloping bank would have to be broken, by either rocks or planting the Rhododendrons to form The rocks could be covered with points or breaks. Wichuriana Roses, Cotineaster Microphilea, English Ivies, Polygonium, Baldsehusanum and Clematis, and a few plants of Veronica Subsessilis and Salvia Azurea thrown in near the Hypericums would, with their lovely blue harmonize with the yellow of the Hypericum. The border being on a slope could be wide in places and narrow in others, having an edging of English Ivies or Vinca Minor, and perhaps in places Phlox Subulata, Funkia Subcordata Grandiflora and the Tritomas. Here too would be splendid places for groups of Liliums and Incarvillas. The Alstromeria Chilensis flowering at the same time, as the Speciosum Liliums, would with their orange and pink flowers, harmonize splendidly with the pink and white of the Liliums; flowering in the Autumn too, would be most useful for a summer residential garden.

Some of the Eremurus with their white and pink flower spikes from 4 to 8 feet high are splendid for the center or back ground of a Lily group, and the Autumn Daffodil, Sternbergia Lutea with the Autumn crocus, Colching would find a home, bother grouped in a task

A to t

nestled up to a Mugho Pine or a group of Yucca Filamentosa.

Such a sunken garden as this, where irregularity, with harmonious arrangement of color and form in foliage, is tastefully carried out, would produce that charm of peaceful, restful character that is so much admired in our best

natural landscape scenery.

The sunken garden is both useful and beautiful also when used for more formal garden effects. It is particularly adapted for a garden of Tea and Hybrid Tea roses surrounded by climbing roses growing on chains festooned from posts, beneath which, and surrounding the sunken garden, would be a border of roses consisting of types like the Hybrid Sweet Briers, the Rugosa Roses, Austrian yellow brier roses and its Hybrids, and moss roses. In shape it somewhat resembles the character of

an Italian Garden. By that I mean angular, not curved. A border may be planted with all the varieties of flowers known, yet have little or no artistic beauty. A bed of hardy flowers may be interesting and yet not be beautiful. I recently saw growing naturally a mass of Lobelia Cardinalis. It was in a low moist open sunny situation, intermingled with the flowers of Red Top grass (Agrostis Vulgaris) and others. The picture was so strikingly beautiful that it could not fail to attract attention. In our gardens we may not have, or want, the same conditions, but we may make a picture with this plant that would be at least attractive. On a border or a bed we mass this Lobelia with another, Lobelia Syphilitica, having blue flowers, planting among them the hardy grass Elymus Glaucus, edged with a low grass Festuca Glauca or the bed could be edged with a small yellow Chrysanthemum or Aenotheva Fraseri and Youngii, still another combination with this cardinal flower would produce a most beautiful effect. Lobelia Cardinals intermingled with Platycoden Grandiflorum, blue and white, edged with the blue Campanula Carpatica or Persifolia, Salvia Azurea would be charming, planted with the Lobelia Cardinals. A little sweet Alyssum seed sown on the bare spaces would add to the beauty of the bed, and some Montbretias, Tritomas or Gladiolas would prolong the season till frost.

A bed of Veronica Subsessilis and hardy Delphinums, intermingled with annual Larkspur and the annual Giant yellow Poppy, Hummemannia Fumariacefolia would

make a striking and yet harmonious bed.

The Funkia Subcordata Grandiflora intermingled with Tritoma Pfitzeri would form an attractive group. old Feverfew or Matricaria would with a scarlet Phlox like Coquelcot make a beautiful bed, lasting from June to October. The double white Yarrow Achille, "The Pearl," might be used instead of the Feverfew and an edging of Linum Perenne or Coccinum would improve the bed. Anemone Japonica in all its varieties are most beautiful in masses, and their beauty is enhanced if edged with the hardy violet Aster, Acris Nanus. Masses of Anemone Japonica are beautiful on the wavey border line of a shrubbery, a few groups of Helianthus Soliel de Or, Miss Mellish, Hoopsii Pimilum and the double form of Heliopsis, form a splendid background of color for the white and pink Anemonies.

A bed or group of hardy Chrysanthemums, yellow and white will be more beautiful if edged with Sedum Spectablis and a group of Aster Novae Anglica with its purple flowers will be more admired if planted with groups of Heleiums and a mass of Hemerocallis (day lily), Thumbergii, Flava and fulva in the foreground. A bed or group of Hydrangea Paniculata Grandiflora may be carpeted with Anthemus Tinctora Kelwayii or edged with Coreopsis Lanceolate or have for a background, Golden Glow, Heliopsis Pitcheriana or some of the varieties of Helianthus. They also combine well with the Buddleya

Veithcii, flowering at the same time.

The Mahonia Acquafolia with its red bronze foliage makes a splendid front edge to a mass of Helenium or Hardy Yellow Chrysanthemum or to a bed of Titomas and Montbretias.

A pretty bed or group would be formed with a combination of Penstemon Barbatus Torreyii and Oenothera Fraseri and Youngii. The Monardya Didyma groups well with Physostegia Virginica Alba, but is likely to overgrow anything planted with it. It is a charming and striking plant for a border and is beautiful planted in front of a group of golden foliaged plants like yellow

Elders, Golden Privet or Syringea.

A bed or group of Montbretias and Tritomas needs a blue to bring out their rich coloring. In the background or to one side a group of Caryopteris Masticanthus, Buddleya Veitchii, and Buddleya V. Magnifca, while planted over the ground may be a few Veronica Subessilis and Stokesia Cvanus. A little tall annual Larkspur would be effective sown for a background and some dwf. blue Larkspur could be sown among the Montbretias. The annual nemesis, blue gem, should make a splendid plant to intermingle with Montbretias.

A mass of Rehmannia Angulata with its Foxglove like pink flowers growing 4 to 5 feet, makes a beautiful picture on a border, these are splendid plants to arrange in harmony with groups of Hollyhocks and the various varieties of Foxglove, all are stately flowers and must not be smothered up with shrubs or overhung by low branches, let them stand out prominent at the bend of a shrubbery border or centre of a bed, where their upright flower stems appear to challenge their more majestic com-

panions the Oaks, Beech and Birch.

A corner or background best suits the Boltonia Asteroides, a few scarlet Phlox or Red Gladiolus mingling their heads with the showers of white daisy, mist like flowers of the Boltonia, forms a pretty picture. The Boltonia Latisquanna forms a splendid picture combined with the large flowering Hybiscus or Mallow of which there are now so many beautiful colors. For border effects in the Autumn they are most charming.

Heuchera Sanguinea and Veronica Subsessilis will make a pretty edging to a bed of Canna Buttercup, carpeted with Tagettees or Sweet Allysum; the Anchusa Italica Dropmore variety can be intermingled with a good vellow or orange Canna. Pentstemmon Barbatus Torreii forms a good combination with white Snapdragons or with Physostegia Virginica Alba, and a border planted with Shasta Daisy or any white free blooming daisy, and the pink Petunia Rosymoon, with a background of Chrysanthemum Uligolosum with a few Montbretias scattered through forms a picture not soon forgotten.

Some times a very pretty feature may be made of a sundial or a large vase, by preparing a bed at its base and planting the whole with May blooming Tulips in all their varieties. Also with Spanish and English Iris and Montbretias, Hyacinth Candicans, Tygridias, Alstromerias and Liliums, then plant the bed thick with English Ivy, edge the bed with Phlox Subulata roses or Eunoymons Radicans Varigata and an all season, permanent and pretty bed is obtained at a small cost. Phlox Subulata and Alyssum Saxatile forms a pretty edging to a quiet walk, especially when a few rocks are used to line the walks edge.

The Aquilegia or Columbines are among the most beautiful of spring flowers; they are best grown in a mass; they do well in partial shade grouped under trees, or at the edge of woods and shrubberies, they are a charming feature. The Dielytras and Corydalis and the lovely Doronicums or Leopards bane all enjoy shady

places, as do also the Tree and Herbaceous Peonies and the Hypesicums, but they also lend themselves to the adornment of the open borders. Although as with the Wild Asters and the Golden Rod, their place is in a part of the garden that is set apart for a quiet corner, a sort of semi-wild garden where the mowing machine is not allowed to enter, and the pruning knife is sparingly used.

Surely, in such a place as this, a Lily-of-the-Valley bed would be found, and a bed of Violets, the Poets Narcissus, Wood Hyacinth, and the endless variety of the other Narcissus, Trilliums and Crown Imperials. Here too, if there are a few trees, plant some climbers. Clematis Paniculata will soon scramble into a tree letting fall its long tendril like growths like a fountain of snow. The Akebia has a light feathery growth which does no injury to the trees through which they clamber and festoon from branch to branch.

Celastras Scandens or Bitter Sweet might be far more extensively used in the plantation lines. It is a strong grower but its soft trailing habit does not allow any injury to the trees, and its persistent red berries enliven

the shrubbery trees all the winter.

Quite recently I saw an old pear tree with its trunk and branches almost covered by the Euonymons Radican Varigata. It was a beautiful object and undoubtedly produced by chance. If some one planted a Bitter Sweet vine so that it scrambled through the branches intermingling its red berries with the white foliage of the Euonymons, a charming picture would be produced. The Euonymons Radicans is a splendid climber to plant at the foot of trees, for it will clothe the bole of a tree withstanding frosts that would kill the English Ivy. Hydrangeas Scandens is a good tree climber, also good for walls. It is self-clinging, has handsome foliage and pretty clusters of flowers. For large trees the Ampelopsis Virginica surpasses all the climbers, pushing its growths up to the top branches or to the outermost twigs, letting fall its long tapering growths which, during the summer are unnoticed, but in the fall their brilliant coloring and gracefulness makes this vine a prominent and charming feature of the garden.

The Dutchman's Pipe is a good vine for large trees or for furnishing the entrance to a secluded or different part of the garden. Some of the Honeysuckles are also splendid climbers for scrambling into lower limbs of the trees in narrow plantation belts, giving that density which is a necessary feature and yet not obtainable because of

narrowness of the planting.

The Honeysuckles, Ivies, Vincas and Euonymons should be planted extensively for a carpet through the shrubberies and plantations, the little moisture they take is a small matter compared with the protection they give the roots from the drying, hot winds in summer and severe cold of winter. Then the leaves they hold decay and enrich the ground. This manner of treating shrubbery borders opens a field for hardy bulbs, for in such a place they will give the best results. It is on the wavey outline of these shrubbery and plantation borders that our Peonies find a place. If planted in groups of one color they are the most effective. The Iris family also, if there was no more suitable location, would do splendidly here. The Spanish and the English should be planted so as to get the protection of Ivies and other ground creepers. Of course, a place near the water would be preferred by most of the Iris, but the Iris family are accommodating; they do well almost anywhere if given a deeply dug and well prepared soil with protection for their crowns in the winter.

The Spirea family are all beautiful, from the tall Spires Aruncus to the small Japonica in groups near the water or in a moist situation they are most at home. But they,

like the Iris, will accommodate themselves to almost any situation if not very dry. The Spirea Palmata and Queen Alexandra are both very pretty and should be included with the other Spireas.

In arranging the various plants so as to obtain a unity of expression there must be harmony in the individual parts, and each individual part must be in harmony with

the whole.

There is no rule to work by. The landscape artist must have a preconceived picture impressed upon his mind. He may have seen it, and endeavors to imitate or he may have an idea of his own, but the scene, the picture, which he desires to work out is impressed upon his mind, and every act performed in the work is part of the definite plan already in his mind having a definite shape. Of course, diversity of mind, climate and environment must naturally produce different tastes which will show itself in flower arrangements equally with dress and millinery.

In carrying out flower bedding arrangements there are certain principles that should be borne in mind. We may not need reminding, but I will just mention the fact that a flower bed or flower garden is to display the flowers. It is not the purpose of flowers to display the beds.

Beds of flowers in the form of a clock, a rug, or an animal, or the initials of the owner may gratify some individual taste, but it is not art. They may be even quaint, but not beautiful nor artistic. Try to avoid all such eccentricities. One look usually suffices to take in all there is in such objects. It is, of course, essential that the flower display be in harmony with the surroundings and the residence, if near.

Beds of flowers should not be scattered over a lawn without any apparent connection with each other, and yet no hard line can be drawn, for exception is made to beds of cannas, castor oil plants, hardy grasses, bamboos, and sometimes Salvias, or plants of that character, when properly placed. Simple or regular formed beds are usually the best to display flowers and easiest to fill and care for. Such shapes are rectangular, circular and elliptical or oblong. Flower beds show to the best advantage when formed into groups or flower gardens. The patch work quilt style of shrubbery planting bears the stamp of office manufacture; it is not landscape art. Landscape art more nearly approaches an artistic picture, the other, the carpet factory.

The hardy flowers appear most natural on borders with a background of tall plants, of sufficient depth to give an air of density. On such a border both hardy perennials and annuals may intermingle. If planted or sown in irregular groups or masses, the best effect is produced, although I think some latitude is left to the individual taste. Hollyhocks to my taste are beautiful and stately in rows, while the foxglove of similar appearance, but smaller, appears to better advantage in irregular groups. The hardy Asters are best with the golden rod in the semi-wild garden border, so also are many of the tall growers like the Boltonias, some of the Helianthus and Heliopsis. The hardy garden pinks are best used to edge a border or group. They may even be dug every year or two and relaid like box edging. Their foliage is attractive the whole year.

Some plants like the Iris, Hibisens Moschutos or Mallows and Lobelia Cardinalis and some Funkias show off to the best advantage if planted either by the waterside or in wavy lines in hollows or at the bottom of a declivity so as to resemble as much as possible the line of a watercourse.

The rose-garden is always an important feature and indispensable in all gardens of any pretensions. This should, where it is possible, be detached from the main

lawn or garden; not pushed into a corner in the shade, for nooks and corners seldom make good rose gardens, but select a sheltered position open to the sun and air. A few shrubs should be grouped around it to give an air of privacy, for it is here that ladies will delight to bring their friends. Vistas of the glories of the rose beds seen through breaks in the shrubbery should entice them to walk to it while an open and fully exposed to view rose garden that may be seen from a distance, may not tempt a close inspection.

Rustic posts with chains festooned from post to post serve for climbing roses and may also be utilized for clematis. This makes a pretty and neat arrangement for partially enclosing the rose garden. Grass walks are good for a rose garden, and it is a good plan to have a bed for each variety.

To break the monotony of sameness in height of the dwarf roses, standards should be freely planted, while in some rose gardens climbing roses could be used trained to poles. It is not difficult to select a good collection of roses. The tea and the hybrid tea roses, however, should be well represented in any rose garden, for they continue to bloom right into the winter months. The delicate coloring of their flowers make them charming subjects for the summer and autumn rose garden.

That splendid rose "Gruss un Teplitz" is exceedingly useful for bright effects. I have used it for a border alongside of a mountain-stone house, with very good effect. In such a position it is not glaring, but harmonizes with the stone and helps to relieve the dull color. This rose blooms profusely the whole season and its foliage is handsome. I consider Caroline Testout the best pink for bedding. The budded Hybrid tea roses are better than own root plants for outside. They are more vigorous than the "own root plants." I believe they ripen up better in the fall and so are better able to stand the winter. Tender Tea roses may be dug up in the fall and heeled in to a depth that completely covers the plants. In this way no losses occur, or they may be moulded like celery. Tying up with straw is then unnecessary. Standard roses may also be dug up and buried in the late fall. No losses will then occur with the standards as is often the case now.

I have not troubled you with long lists of plants. The nursery catalogues supply these; the cry and need is, how to use them. Progress in horticulture during the last twenty-five years has been marvelous. There is no reason to suppose it will not continue. It is for the gardeners to grasp the situation, study the art of landscape gardening, get well acquainted with trees, shrubs and hardy flowers, study the work of great landscape gardeners and the characteristics of the plants and trees you have under your care. Endeavor to plant more of the things you do not know, even if you have to tear out, or rearrange, your shrubberies, so that your knowledge of trees and shrubs is thorough and up to date.

The man who produces beautiful effects in the arrangement of flowers makes the world more cheerful and his work has a great refining influence upon the people who come in contact with it. But the work itself is ephemeral, changing like fashions, and often produced to suit tastes and moods. But good landscape effects are not influenced by fashions, tastes or moods, but are produced by following certain well defined principles. The carrying out of which calls for the best of good judgment and a thorough and definite knowledge of horticulture gained by practical experience and association with the best in landscape art, until one becomes imbued with that sense of adaptability, harmony, and good taste that is essential to the landscape gardener's art.

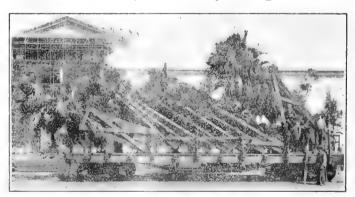
#### TRANSPLANTING BIG TREES.

Hundreds of full grown palm trees are being transplanted to the gardens and courts of the Panama-Pacific International Exposition at San Francisco. The operations in connection with moving the great trees are conducted on a larger scale than any other previous similar work, yet the palms comprise only one portion of the great aggregation of trees and plants and flowers that are being gathered from all over the world for the decoration of the 1915 Exposition.

The horticultural and floral display in magnitude, variety and beauty will excel anything of its nature ever presented at a world's exposition. Thousands of trees, shrubs and flowers have been introduced from far corners of the world. These include hundreds of giant tree ferns, palms, cypress, rhododendrons, firs, acacias, eucalyptus trees, banana plants, orange and lemon trees and thousands of trailing vines and flowers including roses, bougainvilleas, veronicas, hydrangeas, geraniums, tulips, crocuses, anemones and daffodils.

Two species of palm are used on the Exposition grounds; principally to line the South Drive which runs between the main group of exhibit palaces and the great South Gardens. They are the Canary Island date palms and the California fan palm, a carload of the latter being shown in the accompanying photograph.

The trees are brought to the Exposition grounds from



NOVEL SYSTEM OF REPLANTING LARGE PALMS.

nurseries where for the past year or six months they have been prepared for transportation by means of the side-box system, perfected by John McLaren, director of the Exposition landscape work. The side roots and trees to be moved are cut at least six months in advance and the boxing is sunk on four sides. When the tree is acclimated to its "short rations" the roots that extend directly downward are cut and a bottom put on the box. Before being moved, uprights are nailed to the box to prevent damage to the trunk during transportation and the tree can then be lifted bodily aboard a freight car. Trees weighing anywhere from eight to twenty tons have been handled in this manner with complete success. At the exposition grounds the process is reversed. The box containing the tree is set in the ground with the bottom removed and later the sides are drawn out, allowing the tree to gradually become accustomed to the changed condition.

The whole effect that will be obtained through the use of such large quantities of full grown trees will be that of a park of years standing. The gardens will be complete months in advance of the opening of the Exposition on February 20, 1915, and to the visitor there will be little evidence apparent that the space then occupied by the great exhibit palaces and wide stretching lawns, with interspersed clumps of trees and bushes, was but a short time ago a wide expanse of salt water and marsh land.

#### THE SEMI-AQUATIC IRISES.

By H. J. MOORE.

The most noteworthy of the semi-aquatic group of iris is the Japanese I. Laevigata (syn. Kaempferi), differing to such an extent from the other representatives of the genus as to merit the name of the clematis-flowered iris, owing to its flowers resembling those of the large-flowered clematis. This lovely plant will flourish in any good soil, and is not particular to position if such be damp, and sunny, but as it is really semi-aquatic, this iris is seen at its best when growing by the water's edge, near a small stream, for instance. When arranged in masses in such positions the beauty of its flowers is indescribable, the colors are magnificent. Many flowers measure eight inches in diameter. When associated in a scheme with other semi-aquatic or aquatic plants, such as Nelumbiums and water lilies, no combination could be more pleasing.

The Japanese Iris may be effectively used in any sunny border with a soil fairly retentive of moisture, provided that water be copiously afforded during dry weather, especially previous to flowering and for a short time afterword. It is not advisable to attempt to grow the plants in a very sandy or porous soil, but a depression or hollow may be utilized to advantage in a garden with such a soil, by simply incorporating a quantity of clay when planting. In such depressions moisture will remain much longer than on higher ground, and by judicious applications of water, results will prove eminently satisfactory.

A novel and interesting way in which to grow the Japanese Irises is to sink a tub or barrel without a bottom, into a hole in the garden border, or even in any convenient and sunny position. The depth of the barrel should not exceed eighteen inches. Four inches of clay should be placed in the bottom, and upon this twelve inches of good adhesive loam, leaving two inches of space at the top. Plant the iris either during the fall or spring, and during the second spring after planting, just as growth commences, afford weak applications of liquid cow manure occasionally. When buds are forming, and during the flowering period, do not neglect to water nor withhold it entirely until the resting period approaches.

The season of flowering of the Japanese Iris is from the middle of June until August, varying, of course, with latitude. The common yellow Water Flag I. pseudacorus, and its varioties albus and Bastardi, also the native species I. versi-color and I. carolinensis, are all suitable for water-side planting, while the exotic Iris sibirica and its many varieties, so well known to all lovers of the plant, require a moist rich soil and a sunny position for their perfect development. There are also many other semi-aquatic exotics, of which space forbids mention, but which, if cultivated along the lines advised for the Japanese types, will give equally good results in a moist border or at the water's edge.

The Japanese, as indeed almost all semi-aquatic irises, may be raised from seed. Many new varieties are annually raised by crossing. This latter procedure is interesting and worthy of a trial, as the iris offers a wide field for hybridization. Spring, as recommended for the border types, is the best time to sow the seed. Division of the rhizomes, however, is the quickest and most popular method of propagation, this being performed by simply severing them in the manner explained in a recent article.

It would seem that there is need of, and room for, extensive experiments with the hardy iris, especially the semi-aquatic types, exotic or otherwise. It appears incongruous that such beautiful and valuable plants are not included more generally in landscape gardening schemes, especially where woodland and water scenes are included. Many species and hybrids are eminently adapted for natu-

ralizing in such positions, as they seed readily and quickly cover large areas with multi-colored patches of flowers, which are a thousand-fold more desirable because more naturally arranged and more naturally adapted to wild gardening than the mixed exotic, and other herbaceour perennials, and shrubs which are often used for t

In naturalistic planting, where native irises cannot be obtained or where some special effect is desired, it is quite permissible to utilize exotic subjects, but we must remember that irises are irises all the world over, and if the iris is to be a special feature of any scheme, we must not be misled by the lure of some nursery catalogue with its brilliantly-colored plates and glowing descriptions into purchasing something just as good. There are numerous responsible firms from whom the semi-aquatic irises may be obtained, there being nothing just as good as the iris where the iris is the logical subject to use.

Canadian Florist.

#### JUNE.

OINED be the hand of time and June, The fragrant rose, the garden's pride, Opulence of heavenly boon,

Perfumes the air at eventide.

INDAUNTED time at manhood's noon, Comes now to wed his long sought bride. EATH nodding stars, and summer moon Their vows are made, the knot is tied.

Round Earth's altar flowers festoon, Morn wafts their fragrance far and wide,

Birds warble in their sweetest tune,

All nature joins "Here comes the bride," May they enjoy their honeymoon. FRE long, bold fate shall them divide.

DAVID S. MILLER.

#### PERFECT DAYS.

The poet and mystic, Emerson, wrote of the perfect New England day: "There are days which occur in this climate at almost any season of the year, whereon the world reaches its perfection; when the air, the heavenly bodies and the earth make a harmony as if Nature would indulge her offspring;... and the cattle that lie on the ground seem to have great and tranquil thoughts." It was of such a day that Lowell sang:

"And what is so rare as a day in June? Then, if ever, come perfect days: Then Heaven tries earth if it be in tune, And over it softly her warm ear lays."

The busy man in the strenuous days of having has, it is true, little time for poetry and reflection; yet there is something about the quality of the early June days that lifts us out of ourselves, and sets us in tune with the infinite. But these thoughts visit only those who are in close touch with Nature, and are scarcely possible to those who walk in the deep caverns between sky-scrapers. and whose horizon is bounded by rows of houses. Thus by the divine law of compensation, those who in the fields are bearing the heat and burden of the day are able to see with a clearer vision as they lift their eyes to the hills.

The man who is thus daily and hourly in close touch with Nature, sharer of her secrets, partner in her bounty and witness of her beauty and her miracles, ought to be a clean and wholesome man, as we believe usually he is. Wickedness and vice cannot live in such an atmosphere if man is in proper touch with his environment and has caught the celestial fire. Let us all, however busy we may be, pause long enough to drink in the beauty of these June days, and be thankful that our lines have —Farm Journal. fallen in pleasant places,

#### GEORGIAN COURT, LAKEWOOD, N. J.

A recent visit to "Georgian Court," Lakewood, N. J., the country estate of George J. Gould, Esq., found it almost perfect in springtime splendor. The fine collection of rhododendrons, both the catawbiense and hybrids, as the accompanying illustrations show, were rich in flower.

The azaleas Amoena (there must be over a thousand of



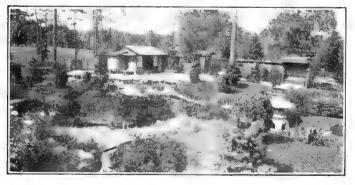
A GLIMPSE AT THE RHODODENDRON DISPLAY.

these plants about the grounds) with their thousands of cerise flowers, must have been a gorgeous sight in bloom, although we were too late to witness it. Our illustration on the cover page is reproduced from a photograph of a beautiful specimen azalea Amoena on the Gould estate, which is claimed to be the largest in existence, measuring over twelve feet in diameter.

Lakewood being regarded as a winter resort, the plantings of evergreens predominate and we saw beautiful specimens of spruces, pinus, taxus, retinisporas and other species, the whole making a grand display and showing good taste in architecture and landscape.

The Japanese garden is one of the show features of the estate, with its combination of color and streams of water and miniature water falls. The sunken garden with its marble steps and beautiful statues which lead to it, is a marvelous piece of work where art and skill combine.

The residence itself is a beautiful structure nestling among the pines surrounded by lawns which make a pleasing effect. We were all much impressed with the



JAPANESE GARDEN-AN INTERESTING SPOT.

beauty of the lawns, of which there are over one hundred acres; they looked so green and fresh!

The whole estate, which has an area of over two hundred acres is devoted entirely to pleasure and sport. Polo, golf, tennis, boating and shooting are induged in, in their seasons.

The range of greenhouses is an innovation to one on his first visit to them. Here chrysanthemums, carnations, roses, gardenias, orchids and other flowering plants



RESIDENCE OF GEO. J. GOULD, ESO .- GEORGIAN COURT.

are growing by the thousand and they were all found in excellent condition. Other houses are devoted to fruits and vegetables. Grapes, peaches, nectarines, tomatoes, cucumbers, beans, cauliflower, lettuce and even cabbage are found growing under glass in abundance.



ITALIAN GARDEN WITH CASINO IN BACKGROUND.

Mr. George J. Gould is said to be an ardent lover of nature and this seems to be exemplified by the entire appearance of his estate. Its development appears to be one of perfection wherever the eye can see.

Joseph Mills, the superintendent, a young man still in



ENTRANCE TO THE SUNKEN GARDENS.

his early thirties, received his early training on some of the finest estates in England. He has had exceptional experience both outside and in the greenhouse and consequently is well fitted for the position he now holds. Much credit is due Mr. Mills and his able assistants for the splendid up-keep of Georgian Court.

# ANNUAL SWEET PEA SHOW

AMERICAN SWEET PEA SOCIETY
American Museum of Natural History
June 27 and 28, 1915

# The Children's Home Garden

By Elizabeth Chase.

A tragedy has been apparent to many who have taught school in Vermont during the past few years. Slowly but persistently it has dawned upon the minds of those who have had to do with education, or think about it at all, that something has been vitally wrong with our educational system. There has been a remarkable spectacle of people rearing children whom they love and for whom they toil, and yet, in whom, from earliest childhood, they have instilled the idea that they should live their lives when grown up in some better place than that in which they were born. They, the parents, with the help of the public school system, have diligently and constantly educated their children away from their native environment. Their eyes have grown long sighted in looking for the pot at the end of the rainbow while stumbling over the opportunities at their own doors. This training added to the natural tendency to migrate which we all inherit, has made sad havoc of our small villages and rural communities. Each year the best of the youths have gone away leaving inefficient ones behind. There have been exceptions to this rule always, and yet it is true that the best, to an alarming extent, have been encouraged to leave home as early as possible, and have done so. Following them to their distant fields we observe that in most cases they make no greater nor less success of themselves there than they would have had opportunity to make at home. Their native places have frequently fallen to decay which is a cause of regret as they grow older, when the thoughts naturally turn with sad reflection and affection to the undeveloped opportunities and scenes of their birthplaces. Villages have not thrived as they should, not having been well fed by the outlying farm districts. The boys who have left the farms when young finding themselves without work in trying industrial times may return to the farm but they have unfitted themselves, many times very seriously, by not keeping pace with farming methods.

The idea grew in our mind that parents and educational systems might better train the children by interesting them in the occupations of their home environment, training them to make the most of home opportunities. In this way they might become more useful and better citizens, developing greater love and respect for their native town and be better equipped to live their lives either at home or in bigger places, if called there.

That is why a small attempt was made some twelve or fifteen years ago to interest some children in a Vermont village in school gardening. After two years' trial it was a failure. Why? First, because the children came from scattered districts and when the long vacations came school and all that pertained thereto was left far behind. Secondly—we found human nature to be selfish. No few children, however convenient for them, would take care of the school garden when the other pupils were scattered and not able to do their share of the Since then we have learned to look upon this trait more as a part of the natural independence which is developed especially in every individual who lives in farming districts. We also came to realize that when almost every boy and girl has plenty of land at home that they do not need to have a small tract loaned them. So, then, because of the scattered conditions, because of the independent natures and because they have land of their own upon which we want a goodly number to remain, we concluded that home gardens were best for our country boys and girls. School gardens are impractical for country schools; only as a small demonstration, one can be used. We believe that hot beds at the country

schools are excellent, however. In these they may start early plants and transfer them later to their home gardens.

Opportunity came, five years ago, to try home gardening with children. Two years were spent with very small results. It was easy from the first to interest the children, but the indifference or amusement of the parents was often disheartening and in a few instances impossible to surmount. During this period few people knew about the attempt. By the third season, however, the work was well established, the enthusiasm of the children being sufficient to make it a success. In them had been created an interest so keen that they pestered fathers and mothers continually until they were allowed to have a small plot of ground for their own and could join the garden class. Commercial results were also making the parents consider the matter seriously. But one rule was made in joining the class. It was explained to each one so that there could be no question of his misunderstanding, that he must do all his own work after the ground was ploughed and fertilized. No name was accepted without verbal agreement to this proposition. As the class has grown rapidly in numbers during the past three seasons, a few instances have been apparent where children have not done all their own work. Each time the dishonesty has reflected upon the weakness of parents who, in their anxiety to have their children's work show up well, have taught them dishonesty by assisting them. When instances have been proved beyond a doubt that the children have not done their own work, they are not allowed to compete for the prizes. But we are giving undue attention to this point, the only unpleasant one we have ever experienced in this work, and for which our one rule is made. There have really been a surprisingly small number of children who have not been fair. On the contrary honest work is the rule and in several cases the enthusiasm has been so great that it has seemed best to hold the children back. The work has been carried on to some extent through the public school. Elementary garden books have been placed in the different schools and these the teachers have been kind enough to read with the children, or they have been taken home. Regular hours have been given us for talks upon gardening in the schools, when every phase of the work is discussed by the most competent people we can get. Plans for the gardens are drawn in school in the early spring days and all seeds required are secured through the penny packet system. Once each month during the spring and summer a journey is made together to some market garden, chicken, horse or dairy farm. These are made gala days.

Children from 5 to 17 years of age are admitted to the class and are divided according to age into three classes. New departments have been added to the work each year, as there has been a natural demand. General vegetable gardens, special crops, flower gardens and improvement in door yards have been on the list. This year lambs and pigs and maple sugar products will be new features. For each of these departments, prizes have been offered through the generous interest of Mr. Theo. N. Vail of this town and other friends. They are divided into two classes, those given for the work observed by the committee who visits the gardens once each month, and those given by the judges at the fair which is held every fall on the village green.

The prizes vary each year as it seems best to encourage the work of different departments.

The children are not encouraged to save their products

for the fair. They are urged to help supply the family table and to market everything at the right time. They are guided as much as possible in proper marketing. They are guided in raising the things that have special commercial value. A small child likes to make mud pies, but he likes to raise a plant of his own just as well—and as soon as he sees the fruit of that plant he will enthuse over the worth-while product of his labor and not over the mud pie. With occasional parties the work is made play and every four-year-old wants to be five years old so he may join the "garden class." Right there is the best and strongest point of the Lyndon Garden Work-the beginning with the child when very young. Five years is almost too late. We find that beginning with the very young we can develop almost a universal love for these occupations for which their home state is pre-eminently adapted.

We see no reason why this work cannot be done in any rural community and earnestly hope that it may.

(Children's gardens, whether school, neighborhood, city lot or home gardens, have become a potential force in child education; especially so in rural communities, and children's gardens should be encouraged. Elementary courses are taught in some of the schools of the large cities, but those children who have the advantage of practicing right in the soil become the greatest garden enthusiasts. The foregoing contribution by a pioneer in the work presents some valuable suggestions to those who are interested in the movement to keep the youth on the farm.—Ed.)

#### GROWING GRAPES IN POTS.

By Percy E. Hicks.

It is surprising that one does not see more grapes grown in pots, considering the small amount of space they take and the little care that they require for the quantity and quality of the fruit that can be got.

Take on private places where there is only a small amount of glass; if you have a small light house where you can maintain a night temperature of from 65 to 68 degrees I don't know of anything that is prettier or that would give your employer more satisfaction than a nicely finished house of grapes in pots

They are of easy culture; take three-year-old imported canes and give the same temperature as you would grapes in the border starting easy at first and gradually increasing. The main thing is to see that they do not suffer for water and feed liberally when fruit is set.

Black Hamburgh is one of the most satisfactory grapes for pots and my advice to any one that has not tried them is to get a dozen fruiting canes from some reliable firm and take good care of the airing, watering, feeding, etc., and it will give a lot of pleasure to yourself and your employer.



HOUSE OF POT-GROWN GRAPES, GROWN BY PERCY E. HICKS.

#### A CONFESSION.

What a glorious profession is that of the true gardener! He enjoys all the beauties of nature which his employer only glimpses between times!

He gets all the effulgence and none of the worries of

paying for it!

I have been crying like John the Baptist for more pay for the gardener. I take it all back.

The gardener ought to work for nothing and pay a premium!

G. C. Watson.

#### THE HAPPY GARDENER.

Oh! the glorious profession
Of the gardener—for just see
How he holds in his possession
All flowers, vines, shrubs and trees.

Even charms of old dame Nature He claims are his by right, And he for higher wages Now fain would go on strike.

In regard to compensation,
Well may the gardener smile,
For a balance in equation
Shows boss behind a mile.
Enjoying constant pleasure—
While boss gets scarce a peek
At dame Nature's golden treasure,
It may be once a week.

So to equalize life's burdens
I, George, the plan suggest,
That the gardener pay a premium,
He is so highly blest.

The foregoing lines were suggested by G. C. Watson's remarks on the subject. Let some one else give us the other side.

Newport, R. I.

ALEXANDER MACLELLAN.

(From Horticulture.)

# THE S. A. F. & O. H. CONVENTION GARDEN OF 1914.

The Boston reports on all Convention preparations are most satisfactory and very promising, thanks to the well united efforts and labors of the Boston organizations which are hard at work to make the coming convention a great success.

The Convention Garden, as planned and prepared by our enthusiastic brothers of our horticultural and otherwise well known and progressive Convention City, offers a splendid opportunity for the growers of all kinds of outdoor plants to display their goods and their skill. The garden is situated in one of the principal and most frequented parks of the city within easy walking distance of the Convention Hall. The general layout is very effective and the surroundings are most ideal. The grounds and their care are in the hands of most able experts, which, together with the favorable climatic conditions, assures successful culture of every plant that is sent there for exhibition or decorative purposes.

The Minneapolis Convention Garden was a success in every respect and has brought the aims and achievements of our profession and our organization nearer to the public than any other thing the S. A. F. has ever done, outside of its National Flower shows. The people of Minneapolis feel deeply grateful towards the National Society of Florists for the beautiful garden they planted for them and for the lessons it has taught them. The education of the public in this practical manner has already made itself felt amongst local florists, which is proof that such educational exploitation is at the same time practical advertising. Our daily press insisted that

the garden be continued in a similar way in the future and the display of 140,000 spring flowering bulbs, which was at its best a few days ago, brought out the following editorial from the Minneapolis *Tribune* of May 21:

OUR TULIP BEDS.

"Is there in another city of the world a sight so brilliant as the garden beside our Minneapolis armory? There it stands, the property of the poorest child as well as the richest grown-up who passes by. In every such life it is playing a part to-day—warming the soul with the richness of splendid color, quickening in it the love of nature, lifting it above the dusty drab of the day's business. Nature is a bold artist. Were any mere man to splash colors from a paint box in such gorgeousness, to parallel scarlet with canary yellow, to mottle pink and orange in the same blossom, the eyes would close tightly with the hurt. But the very splendor of these gav colors in the tulip beds makes them magnificent. It is as though nature laughed at our futile attempts to rival her and yet gave to us opulently of her most brilliant treasures. It is not so long since such a public garden would have been found far from the center of any American city if found at all. Men and women thought themselves 'practical' in those days; in reality they were only shortsighted. To-day the dweller of the American city sees fartherand he makes his children richer than he was with a succession of clean and wholesome interests as the best possible offset to the day's temptations.

"Our tulip beds are something more than a passing delight, this spring. They are a brilliant certificate of our widening vision and our nearer approach to fullness

of the spirit.'

To what better aims can we devote our professional labors and skill than to the recognized motives outlined in that editorial, and of what could we justly be more proud and happy, than to feel that our endeavors and achievements are deserving of such favorable impres-

sions, comments and recognition.

What has been started successfully last year can now be greatly enlarged upon in Boston, and a splendid beginning has been made. May I be accorded the privilege to ask every grower, florist and gardener to do his full share towards the success of our Boston Convention Garden, through active participation as an exhibitor. The Garden is all ready, and all that is now required is the plants to fill it. We want you all to help us in this educational work, and we want you to share alike the happiness, the pride, the glory and other manifold benefits of this progressive undertaking. Planting time is passing fast, so write to James B. Shea, Chairman, Convention Garden, 30 Beacon Street, Boston, Mass., for information and space. DO IT NOW!

THEODORE WIRTH, President, S. A. F. & O. H.

# A VISIT TO THE CONVERSE ESTATE, MARION, MASS.

The writer recently had the pleasure of a journey over the Converse estate at Marion, accompanied by Superintendent Roy. After walking about two hours around the grounds we realized that a vast amount of planning and an equally large amount of work must have been necessary to have so completely changed the eighty acres comprising this estate into such a picture.

As you enter the gate, if one takes the drive, a beautiful vista of stately trees banked with Rhodendrons promises a pleasing picture when the season arrives for the unfolding of the numerous buds into a gorgeous display. Preferring to walk, one takes a turn to the right and enters the Daffodil Walk winding its circuitous way among Nature's solitude from the gate to the green-

houses. Never in the walk could the eye escape the narcissus in all its loveliness. Bordering the walk are thousands of trumpet varieties, while peeping from among the undergrowth were seen the beautiful poeticus. Another gorgeous display was seen in the formal garden where nearly ten thousand bulbs of various kinds vied with each other in an effort to catch the eye. Emperor and Empress Narcissus were remarkably fine.

In the greenhouses everything showed the touch of the master hand, while the house containing a large collection of Hydrangea Hortensis, each plant bearing several trusses augmented by splendid specimens of pink and while spireas, was the center of attraction. In fact it was hard to turn in any direction without seeing something to hold the attention of any lover of Nature.

W. F. Turner.

#### SUN WARMS ONLY EARTH'S SURFACE.

How far does the heat of the full summer's sun penetrate into the ground?

Probably not one person in ten will give an answer that is even approximately correct, says *Tit Bits*. Their replies generally vary from one inch to many hundred feet. Actually the distance is about three feet. Beyond this depth the temperature of the soil does not vary appreciably from hour to hour, let the midday be ever so hot and the midnight ever so cold. At this depth the mean temperature in the summer is about 58 degrees Fahrenheit and in the winter about 36 degrees Fahrenheit.

And the annual difference? That is to say, the depth at which there is some difference between the summer temperature and that of the winter? Well, at a depth of 60 feet it is impossible to measure any change due to the changing seasons overhead. Go down only 40 feet and it is minute—barely measurable. But at 25 feet to

30 feet it is quite a definite amount.

The surface heat takes a long while to penetrate downward. In fact, curiously enough, the change in temperature of the ground takes just over six months to reach the end of its 25-foot journey. Thus we are faced with the phenomenon of midsummer upon the surface occurring at the same time as midwinter 25 to 30 feet down, and vice versa.

As most people are aware, the temperature increases with the depth. At three feet down the average annual mean is just short of 45 degrees Fahrenheit, while at 25 feet it is just over a degree more, that is 47 degrees Fahrenheit.

In agricultural districts you will hear farmers in the same village talking about "cold" soils and "warm" soils. This, although it sounds improbable to those who have never had anything to do with the land, is an actual fact.

Everybody knows from personal experience that black clothes are hotter to wear when a hot summer's sun is shining than white ones, hence the "flannels" for men and the white frocks for girls. The reason for this is that black and other dark colors absorb heat, while white and the lighter shades reflect it. And this applies to soils equally with clothes.

Those soils which by their ingredients are a darker color are literally warmer than their lighter neighbors. Peaty soils, some of which are nearly black, others a rich, dark brown, are the warmest. Light colored clays and chalk the coldest. There may be as much as 15 degrees or 16 degrees Fahrenheit difference between the temperatures of two soils, lying next each other, and upon the same day. On a warm summer's day the temperature of peaty soil may well be over 87 degrees Fahrenheit, while a chalky field of similar situation in the same district will not rise above 73 degrees to 74 degrees Fahrenheit

THE

# GARDENERS' CHRONICLE

OF AMERICA.

MARTIN C. EBEL, Managing Editor.

Published by

CHRONICLE PRESS

M. E. MAYNARD, President.

A. A. FAY, Sec'y.

Office of Publication

1 Montgomery Street, Jersey City, N. J.

New York Office

236 WILLIAM STREET, NEW YORK CITY.



Subscription Price, 12 Months, \$1.00 :: :: Single Copies, 10 Cent Foreign, \$1.50

Entered as second class matter February 18, 1905, at the Post Office at Jersey City, N. J., under Act of Congress of March 3, 1879.

Published on the 15th of each month.

Advertising forms close on the 10th preceding publication.

For information regarding advertising rates, etc., address Advertising Department, GARDENERS' CHRONICLE, Madison, N. J.

ADOPTED AS THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

President, WM. H. WAITE, Vice-President, J. W. EVERETT, Glen Cove, N. Y. Treasurer,
JAMES STUART. Yonkers, N. Y. Mamaroneck, N. Y. Secretary, MARTIN C. EBEL, Madison, N. J.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; William Duckham, Madison, N. J.; Alexander MacKenzie, Highland Falls, N. Y.; John H. Dodds, Wyncote, Pa.

DIRECTORS.

DIRECTORS.

To serve until 1915—John Shore, Harrison, N. Y.; Thomas Proctor, Lenox, Mass.; William N. Craig, Brookline, Mass.; Frank E. Witney, Fishkill, N. Y.; Robert Williamson, Greenwich, Conn.; F. Kirk, Bar Harbor, Me.; James Bell, New York, N. Y.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

Vol. XVIII.

JUNE, 1914.

No. 2.

In August next we will witness what will probably be the greatest gathering of floricultural and horticultural interests ever brought together at a convention in this country. Boston, which today many regard as the hotbed of horticulture in America, will be the meeting place. The convention will be that of the Society of American Florists and Ornamental Horticulturists. The published reports of the preparations under way give every evidence that not alone the usual trade exhibits, but the outdoor garden plantings will surpass anything of their nature ever attempted heretofore.

The National Association of Gardeners will meet in Boston at the time of the convention, its sister society having graciously included the meeting of the gardeners' association in its general program.

Attendance at Boston during the S. A. F. convention offers a trip both for pleasure and profit, and the gardeners should not miss it. Pleasure, in meeting with the men who have been instrumental in the upbuilding of horticulture in the past decade; profitable, in the knowledge you will glean from a visit to the outdoor garden, studying what has been accomplished in this competitive

planting; and from a visit to the convention's general trade exhibition.

Make Boston during the week of August 16 a part of your 1914 outing. You will not regret it.

Co-operation between the gardeners' societies is no longer an advocated theory; it has become an established fact. Action has been taken by some of the prominent local gardeners' societies to bring this about, the moving spirit behind the plan being the gardeners' national association. The prime motive of the co-operative plan is to create a more intimate knowledge as to what constitutes the ability of the gardener who is thoroughly proficient in his profession—to disabuse the public mind of the mistaken notion that simply because a man knows how to mow a lawn and dig potatoes he is entitled to the title of gardener; and to promote a greater appreciation, on the part of those who employ them, of the value of the services gardeners render; to arouse a keener general interest in what the gardener produces; and, finally, to provide for the gardener, not so situated as to be able to acquire scientific knowledge through a college course, opportunities through their own societies to obtain this education to apply to their practical experience.

The gardeners' co-operative movement is entitled not only to the support of the gardeners, but of all interests allied with the gardening profession. Its sponsors recognize that the plan is no small undertaking and that it needs the boosts of the friends of the profession, as well as the "knocks" of its critics, to bring to it the publicity

it desires and deserves.

#### THE IMPORTANT MAN.

You are important if you put yourself in the way of important things to be done-and do them.

The years, since history began, have produced dreamers and air castle builders, whose imaginary achievements would have astounded the world had they actually put their mind pictures into reality. But all along, such have breathed out their span and died ordinary and unknown.

The Important Man is he who puts his dreams and

great imaginations into works.

The men who pave our streets and plough our soil, and run our machines, and write our books-and who do whatsoever useful things that come to hand—are important men. The task is not always indicative of the importance of the man. But the man is always indicative of the importance of the task.

Your future importance depends upon the importance you place in the things you now do.—Philadelphia

Bulletin.

#### THE ONLY WAY.

There's only one method of meeting life's test, Jes' keep on a strivin' and hope for the best. Don't give up the game and retire in dismay, 'Cause hammers are thrown when you like a bouquet. This world would be tiresome; we'd all get the blues, If all the folks in it held just the same views. So finish your work, show the best of your skill, Some folks won't like it, but other folks will.

If you're leading an army, or building a fence, Do the most that you can with your own common sense. One small word of praise in this journey of tears, Outweighs in the balance 'gainst a cart load of sneers. The plants that we're passin' as common place weeds Oft prove to be jes' what some sufferer needs. So keep on agoin', don't stay standin' still, Some people won't like it, but other folks will. -Philosophy of William F. Gude.

## NATIONAL ASSOCIATION NOTES

M. C. EBEL, Secretary, MADISON, N. J.

#### THE SUMMER MEETING

The summer meeting of the association will be held in Boston during the convention of the Society of American Florists and Ornamental Horticulturists. This decision was reached at the last meeting of the executive board. Many gardeners are members of both organizations and it will give them an opportunity to attend the meetings of both bodies. The program of the meeting will be published in the next issue of the Chronicle. It is expected that a number of speakers, men who have gained prominence in the horticultural world, will address the gardeners on topics in which they will be directly interested.

Members intending to attend the meeting going via New York, will find the *outside route* to Boston a most enjoyable one; leaving New York Monday afternoon, August 16, at five o'clock and arriving at Boston the next merning at eight o'clock. This route has also been selected by the New York Florists' Club, which will journey to Boston on the same steamer as the members of the National Association of Gardeners.

the National Association of Gardeners.

Those who expect to attend the meeting and who decide to join the party going on the outside route should



ONE OF THE OUTSIDE LINE STEAMERS, NEW YORK-BOSTON.

apply to the secretary for reservation of staterooms at the earliest date possible. A number of rooms have been reserved and will be assigned as applications are received. Outside rooms are \$2; inside rooms \$1; both rooms containing two berths. The fare to Boston is \$4. Unless rooms are secured well in advance it will be hard to obtain them owing to the fact that the time of the meeting is the busiest season for summer traffic.

The Copley Square Hotel, Boston, has been selected as the headquarters of the N. A. G. This hotel is located conveniently to the convention hall and is reasonable in its prices. Reservations for rooms should be made as soon as possible, either by applying to the hotel direct, or through the secretary's office. The hotel has submitted the following convention rates: Single room without bath, \$1.50 per day; larger outside room, \$2; court room, with private bath, \$2 a day; outside room, with private bath, \$3 a day. The above rates are for one person; \$1 additional per day will be charged for two persons occupying one room.

# THE GARDENERS' CO-OPERATIVE MOVEMENT.

Seventeen local societies have so far taken favorable action on the gardeners' co-operative movement, which is being fostered by the national association, and have ap-

pointed local co-operative committees. Quite a number have signified their intention of participating in the movement but have deferred taking definite action pending further information as to just what the plan contemplates. There are others still to be heard from. Attention is directed to the article appearing on page 52, which suggests the field for development, through co-operation between the national and local societies, to benefit the gardening profession and those who are following it.

#### NEW MEMBERS.

The following new members have been added to our roll during the past month: Charles E. Carman, Springfield Centre, N. Y.; Walter G. Weston, Lakewood, N. J.; Joseph Winsock and Herbert Dungey, Deal Beach, N. J.; James L. Spalding and William Simpson, Monticello. Ill.; John Johnson, Southampton, N. Y.; Ernest Lieb, Sterlington, N. Y.; Arthur J. Wise, Montpelier, Va.; Benjamin G. Cartmell, Wyncote, Pa.; John Jay Howe, New York, N. Y.

#### PROTECTION IN FORWARDING DUES.

Duplicate bills are about to be sent out to those who have not yet remitted their 1914 dues. The secretary's office desires to direct attention to the risk involved in sending cash through the mail without properly registering the letter and announces that hereafter the office will not assume any responsibility for dues remitted in that manner. In the past it has necessitated considerable correspondence and unnecessary investigation in trying to trace dues which were reported sent in cash and which did not reach the office. It is suggested that where it is not convenient to send a check, a post office or express money order be forwarded, as this protects the sender; or send cash by registered mail, demanding a return receipt of delivery from the post office. Then you will have something to trace your letters by if they go astray.

# APPLICATION FOR MEMBERSHIP

# National Association of Gardeners

I hereby apply for Membership in your Association:

Name in full
Occupation
Address

Date
Reference

Forward Application to M. C. EBEL, Secretary, Madison, N. J., with dues, which are \$2.00 annually, including subscription to the official organ of the Association

# AMONG THE GARDENERS

Joseph Wood, formerly assistant at "Georgian Court," Lakewood, N. J., is now gardener to Mr. Charles B. Noyes, "Cloverhurst Farm," Bridgeport, Conn.

G. A. Reid, a graduate of Amherst College, has secured the position of assistant manager on the estate of Mr. F. C. Littleton, Mamaroneck, N. Y.

Michael Collins recently accepted the position of gardener on the estate of Mr. Oscar S. Straus, Purchase, N. Y., which place Mr. Straus has purchased from Mr. Harry S. Black.

A. A. Macdonald, of the Duke estate, Somerville, N. J., expects to sail on July 14 for a two months' vacation at home. This will be Mr. Macdonald's first visit abroad in thirteen years.

Bernard Greeley has been appointed head gardener on the estate of Mr. J. W. McCahan, Moorestown, N. J. Mr. Greeley was formerly gardener on the General Miller estate, Franklin, Pa.

N. A. Butler, recently foreman on the George F. Baker estate, Tuxedo Park, N. Y., has accepted a position as orchid grower on the estate of Mr. George A. Gould, "Georgian Court," Lakewood, N. J.

J. Johnson, formerly assistant gardener on the D. S. McAlpin estate, Morris Plains, N. J., has secured the position placing him in charge of the G. Warrington Curtis estate, Southampton, N. Y.

Frank Jenkins has succeeded Nicholas Butterbach on the C. Lewis estate, Mahwah, N. J. Mr. Butterbach was engaged in development work on this estate, from which he recently resigned to accept the superintendency on the Ward estate, New Rochelle, N. Y., as reported last month.

William Kleinheinz, superintendent of the P. A. B. Widener estate, Ogontz, Pa., expects to leave for a trip to Europe, accompanied by Mrs. Kleinheinz, about July first, to be abroad two months. The trip will include both business and pleasure, as Mr. Kleinheinz will make some purchases while abroad for improvement work now under way on the Widener estate.

# PRELIMINARY SCHEDULE OF PRIVATE GROWERS' CLASSES INTERNATIONAL FLOWER SHOW, NEW YORK, MARCH 17-23, 1915.

Plants in Flower.

	Fir-t	Second
	prize.	prize.
Acacia, 3 plants, one or more varieties	\$25,00	\$15,00
Acacia, specimen, any variety	15.00	10.00
Amaryllis, 25 plants	25.00	15.00
Amaryllis, 12 plants		10.00
Anthurium, specimen	5,00	3.00
Azalea Indica, specimen, white, not less than 3 ft.		
in diameter	15.00	10.00
Azalea Indica, specimen, pink or rose, not less than		
3 ft. in diameter	15.00	10.00
Azalea Indica, specimen, any other color, not less		
than 3 ft. in diameter	15.00	10.00
Boronia, 6 plants	10.00	5.00
Bougainvillea, specimen	10.00	5.00
Cineraria, hybrid, 6 plants	25.00	15.00
Cineraria stellata, 6 plants		15.00
Cyclamen, 25 plants	50.00	25.00

First	Second
prize.	prize.
Cyclamen. 12 plants\$25.00	\$15.00
Chorizema, specimen	5.00
Erica, specimen, any variety	5.00
Genista, specimen	5.00
Hydrangea, 6 plants	15.00
Hydrangea, 3 plants	10.00
Hydrangea, specimen, not less than 3 ft. diameter. 10.00	5.00
Lilac, 12 plants	15.00
Marguerite, specimen 10.00	5.00
Primula malacoides, 12 plants	10.00
Primula obconica, 12 plants	10.00
Rhododendron, 3 plants 25.00	15.00
Schizanthus, 6 plants	15.00
Schizanthus, specimen 5.00	3.00
Spirea, or Astilbe, 6 plants	3.00
Wistaria, specimen	5.00
Any other specimen flowering plant	5.00
Group of flowering plants and bulbs, covering 200 sq. ft., arranged for effect (orchids excluded)150.00	100.00
Palms and Foliage Plants.	100.00
Areca lutescens, specimen	\$15.00
Dracena, 3 plants	5.00
Dracena, specimen, any variety	5.00
Kentia Forsteriana, specimen	25.00
Kentia Belmoreana, specimen	25.00
Phoenix Roebelenii, specimen	10.00
Palm, other than above, specimen 50.00	25.00
Six foliage plants, exclusive of palms, not less than	
8-in, pots or pans	25.00
Foliage plant, other than above, specimen 10.00	5.00
Group of foliage plants, collection covering 100 sq.	
ft. (ferns and palms permitted), arranged for	50.00
effect	50.00
Miscellaneous Plants.	40 5 00
Bay trees, 2 plants\$50.00	\$25.00
Ferns.	
Adiantum Farleyense, specimen\$15.00	\$10.00
Adiantum cuneatum, specimen 10.00	5.00
Adiantum, any other variety, specimen 10.00	5.00
Cibotium Schiedei, specimen	15.00
Davallia, any variety, specimen	10.00
Goniophlebium subauriculatum, specimen 25.00	15.00
Stag's Horn Fern, specimen	15,00
Tree Fern, specimen	15.00
Fern, any other variety, not otherwise specified 15.00 Selaginella, any variety, specimen 5.00	$\frac{10.00}{3.00}$
Bulbous Plants,	9.00
Hyacinths, white, 3 10-in. pots or pans	\$5.00
Hyacinths, pink or red, 3 10-in. pots or pans 10.00	5.00
Hyacinths, light blue, 3 10-in. pots or pans 10.00	5.00
Hyacinths, dark blue or purple, 3 10-in. pots or paus 10.00	5.00
Hyacinths, yellow, 3 10-in. pots or pans 10.00	5.00
Lilies, 12 pots	5.00
Lily of the Valley, 3 10-in. pans 10.00	5.00
Narcissus, single trumpet, distinct varieties, 12	
10-in. pots or pans	15.00
Narcissus, short or medium trumpet, 6 varieties.	= 00
6 10-in, pans	$\frac{5.00}{10.00}$
Tulips, single early, distinct varieties, 12 10-in. pans 15.00 Tulips, single early, distinct varieties, 6 10-in. pans. 10.00	5.00
Tulips, Darwin or Cottage. 12 varieties, 12 10-in.	0.00
pans	10.00
Orchid Plants.	
Group of plants in variety, covering 50 sq. ft.	
(palms and ferns permitted), arranged for effect.\$100.00	\$50.00
Six plants in variety	15.00
Brasso-Cattleya, or Brasso-Laelia, 1 plant 10.00	5.00
Cattleya Mossiae, specimen	5.00
Cattleya Schroederae, specimen	5.00
Cattleya, specimen, any other variety 10.00	5.00
Cypripedium, 12 plants	$\frac{10.00}{3.00}$
Dendrobium, 6 plants	10.00
Dendrobium nobile, specimen	5.00
Dendrobium Wardianum, specimen	5.00
Dendrobium, specimen, any other variety 10.00	5.00
Cattleya, Laelia, or Laelio-Cattleya Hybrid, speci-	
men 10.00	5.00
Laelia, specimen, any variety	3.00
Odontoglossum, specimen, any variety 5.00	3.00
Oncidium, specimen, any variety 5.00	3.00
Phalaenopsis, specimen, any variety	5.00
Vanda, specimen, any variety	5.00
Specimen plant, any variety other than the above. 10.00	5.00

prize.

\$20.00

First Second prize.

THE GARDEN	EKS	CIII
	First	Second
	prize.	
Cut Orchids.		
Table cut orchids (4 ft. diameter), arranged for		
effect. Decorative green of any kind, including plants, permitted. Quality of bloom, artistic ar-		
rangement and general effect to be considered		
in making award	75.00	\$50,00
Roses in Pots and Tubs.		
Display in pots or tubs, any or all classes, covering 100 sq. ft., arranged for effect	00.00	\$50,00
Collection Hybrid Perpetuals, Teas, Hybrid Teas,	101110	4,30,100
Polyanthas, and other classes, 25 plants, not less		
	25.00	15,00
Six climbing or rambler		15.00
Climbing, red, specimen		-10.00 $-10.00$
Climbing, white, specimen		10.00
Climbing, yellow, specimen		10.00
Best new rose not in commerce	Silver m	edal.
Cut Roses.		
Vase 12 blooms American Beauty	10,00	\$5,00
Vase 12 blooms Milady	5.00	3.00
Vase 12 blooms Hadley	5.00	3.00
Vase 12 blooms, Mrs. George Shawyer	5.00 $5.00$	$\frac{3.00}{3.00}$
Vase 12 blooms Pink Killarney or Double Pink	9,00	5.00
Killarney	5.00	3,00
Vase 12 blooms White Killarney or Double White		
Killarney	5.00	3,00
Vase 12 blooms Killarney Queen	5.00 5.00	3,00 3,00
Vase 12 blooms Radiance	5.00	3.00
Vase 12 blooms Lady Hillingdon	5,00	3.00
Vase 12 blooms Sunburst	5.00	3.00
Vase 12 blooms Mrs. Aaron Ward	5.00	3.00
Vase 12 blooms My Maryland	5.00	3.00
white	5,00	3.00
Vase 12 blooms any other disseminated variety, pink	5,00	3.00
Vase 12 blooms any other disseminated variety, red	5.00	3.00
Vase 12 blooms any other disseminated variety,		
yellow	5.00	3.00
in one vase	15.00	10.00
Carnations-Open to All Varieties-Seedlings and Sp	orts In	cluded.
	\$5,00	\$3,20
Vase 25 blooms flesh-pink, being those shades of	= 00	2.00
flesh or salmon, such as Enchantress, etc Vase 25 blooms light pink, being those shades of	5.00	3,00
pink verging on the true pink, such as Gloriosa,		
Winsor, etc.	5,00	3,00
Vase 25 blooms dark pink, being those shades of pink, such as Mrs. C. W. Ward, Rosette, etc	5,00	2.00
Vase 25 blooms red or scarlet, to include all shades	0.00	3,00
generally classed in those colors	5,00	3,00
Vase 25 blooms crimson, to include all shades	= 00	0.00
known as crimson or maroon	5.00 5.00	$\frac{3.00}{3.00}$
Vase 25 blooms yellow or yellow variegated	5.00	3.00
Vase 25 blooms any other color decidedly distinct		
from colors specified above	5,00	3.00
Best vase of carnations, not to exceed 150 blooms. One or more varieties may be used.		
Decorative green of any kind, ribbon and		
any other accessories may be used as long		
as carnations are the predominant feature.		
It is intended to give the exhibitor the widest latitude in making this display. Vase		
to be supplied by the exhibitor. Quality of		
bloom, artistic arrangement, and general ef-		
fect to be considered in making award 25.00	15,00	10,00
Sweet Peas.		
Best display of sweet peas, covering 25 sq. ft. Quality of bloom, artistic arrangement and gen-		
eral effect to be considered in making award\$	25,00	\$15.00
Collection of six varieties, 25 sprays of each		5.00
Vase of 100 sprays, one or more varieties, ar-	5.00	3,00
ranged for effect	5.00	J,MI,
Table Decoration.  Best dinner table decoration, sweet peas exclu-		
sively. Other foliage than sweet peas may be		

sively. Other foliage than sweet peas may be used. Table to be set for eight. Table to be

Antirrhinum, 25 spikes pink Antirrhinum, 25 spikes white. Antirrhinum, 25 spikes yellow.	5,00	\$3.00 3.00 3.00			
Antirrhinum, 25 spikes assorted	5,00	3.00			
Gladiolus Colvillei or nanus types, 25 spikes	6,00	4.00			
Mignonette, 12 spikes	3,00	2.00			
Pansies, display of cut blooms, covering 10 sq. ft	6,00	4.00			
Stocks, 12 spikes white	3.00	2,00			
Stocks, 12 spikes pink	3,00	2.00			
Stocks, 12 spikes any other color	3.00	2.00			
Violets, double, 200 blooms	3,00	2,00			
Violets, single, 200 blooms	3,00	2.00			
Wallflower, 12 spikes any color	3.00	2.00			
Table Decoration.					
Artistic dinner table decoration. Table to be supplied by the Flower Show management. Accessories to be supplied by exhibitor. Table to be set for eight. Sweet peas not permitted in this					
decoration					
The Horticultural Society of New York offers i	its gold.	. silver			

Miscellaneous Cut Flowers.

supplied by the Flower Show management. Accessories to be supplied by the exhibitor.......\$30,00

#### "IT CAN'T BE DONE."

and bronze medals for exhibits of unusual merit; the exhibits to

be judged and the awards to be made by the society.

The man who misses all the fun Is he who says, "It can't be done!" In solemn pride he stands aloof And greets each venture with reproof. Had he the power, he'd efface The history of the human race; We'd have no steam nor trolley cars, No streets lit by electric stars; No telegraph nor telephone. We'd linger in the age of stone, Where when some keen barbaric brain Of life's conditions dared complain, And planned a wheel on which to roll The load his arms could not control, Sneers rose from all the mighty crew That ever scoffs at what is new. The world would sleep if things were run By men who say, "It can't be done!" -Washington Star.

#### PARTS OF A FLOWER.

The various parts of a flower are looked upon by botanists as being modified leaves. The outside covering of the flower bud is termed the "calyx." Its purpose is to protect the more tender parts within, and it is generally green in color and quite leaf-like in texture. Within the calvx, the next row of leaves constitute the "corolla," each leaf being called a "petal." These are generally white or of some brilliant color, and not only serve as a protection to the inner parts, but by their bright color attract insects which assist in pollination.

Within the corolla the next row of modified leaves are the "stamens," which at their tips bear small yellow or brown pouch-like vessels called the "anthers," and which contain the male element or "pollen." Within the circle of stamens is one or more slender greenish stems called the "pistil," the outer end of which is more or less enlarged and sticky on the upper surface. This enlarged portion is the "stigma." At the lower end the pistil is considerably swollen and is called the ovary. This develops into the fruit or seed pod, and within it are the ovules, which, after pollination, become the seeds.

# The Gardeners' Co-operative Movement

Co-operation between the National Association of Gardeners and the gardeners' local societies had its inception at the meeting of the executive board of the gardeners' national organization held in New York in January last. The prevailing opinion at that meeting was that the association had reached a state where it is to be regarded as solidly founded, recognized as an influential factor in ornamental horticulture, with a membership representative of the best element within the gardening profession—and that the time had arrived for it to take some definite action to benefit the profession which it

represents.

Co-operating with the local societies, it was agreed, would afford the greatest opportunities for effective work of national scope; thus it was decided to communicate with the different local societies throughout the country to obtain their views on such a movement. The response was so favorable that at the meeting of the executive board held in Philadelphia, in April, the co-operative plan was placed into being and an invitation was extended to the local societies to have those desiring to participate in the movement appoint a committee of three members of their society to work in conjunction with the committee of the national association, which committee is to be known as the National Co-operative Committee. As enough of the local societies have already appointed committees to assure sufficient support from different parts of the country to make the movement a success the National Committee is preparing to begin its activity in the early fall, being now engaged in working out the details of its

Just what can be attained through a co-operative movement between the local societies and conducted through a national source cannot be foretold, for it will depend largely on the interest taken by those who engage in it. If the various committees can be sufficiently interested to seriously engage in the work before them much can be accomplished for the good of the gardening profession as a whole; and incidentally for the development of the local societies themselves. It will require whole-souled energy on the part of those entrusted with the undertaking to produce the expected results. Half-hearted effort will not aid but will retard the cause. There are those who regard possible success of this movement which involves relying on scattered sources with much scepticism; but I believe that there are members in every gardeners' society who, if they find that they can serve their profession, will willingly give the time to do so; and who can be relied on to perform the functions of a committee which a movement such as the one under discussion will

call for.

The membership roll of the National Association of Gardeners spreads over practically every state in the Union so that its mission is not in any sense a local one, but is a national one; while the influence of a local society is in most instances confined to the sphere of the community in which it is located. The gardeners' problems concern both their national and local societies and working out their solution is the business of both of them. Conditions in all communities are not alike, but the unfavorable ones where they do exist are closely related in most cases. Through co-operation many of the conditions may be improved. To strengthen the profession conditions governing it should be more uniform; more alike in every direction that the profession reaches. By studying the general conditions systematically, endeavoring to eliminate the bad and trying to better the good in them, the profession cannot fail to benefit; and such

benefit will reflect in the individuals who are entitled to the calling of gardener.

Most gardeners, especially the younger men who are not yet firmly established, are as much interested in the probable compensation they will derive from their proression as they are in any other phase which enters into it, and this is but human nature; for experience has taught that it costs to live, although now and then the sentimentally inclined suggest that the gardener must find his real compensation in the joy he derives out of his vocation. Opportunity is presenting itself for a campaign of education in a co-operative way for improving what is now a very unsatisfactory situation; for it is only too true that the gardeners themselves are as much to blame as are the employers, for the poor remuneration that comes to so many of them and which often is out of all proportion to the responsibilities they are expected to assume. To substantiate this contention it is only necessary to allude to the practice of many gardeners when seeking a position, who, on learning of a vacancy, file their applications specifying salary expected, without considering as to whether the position applied for warrants a better salary than asked, or whether they are even qualified to apply for it. They have simply made up their mind to secure the position if they can and have just one object in mind -to get employment at so much a month. Through this practice many good opportunities have been spoiled and as a consequence thereof estate owners engaging unfitted men have become disgusted with their experience in attempting to maintain country estates; and they are frequently wont to blame the profession as a whole for their experience with a few individuals in it. To educate the estate owner that a gardener thoroughly efficient in his profession is entitled to more than the most of them are disposed to pay will make it necessary to strike at the root of the evil. The fact must be made known to these owners that the men who proffer their services for small pay almost invariably are small men in the profession; that a capable gardener is entitled to, and expects proper compensation for his services, just as do the capable men in other professions.

It should not be amiss to suggest here that salaries within the gardening profession can never be regulated, or fixed, as some choose to call it, either through co-operation or by means of any other methods. Professional gardening will always be looked upon as acquired luxury by those who employ it and not as a fixed necessity. This will prohibit the enforcement of any regulations such as govern trades and labor in general, and those who are possessed of the knowledge and skill required of the thorough gardener must rejoice over the fact that they are above the domination of such regulations. What is necessary is to establish a closer relationship between employer and gardener; and to instill a greater confidence in the gardeners' ability; and to arouse a greater interest on the part of the owner in what his gardener is producing for him. When this confidence and interest is once properly created, the relationship of employer and gardener will become such that compensation will be a matter of individual adjustment and not to be fixed as is from

time to time advocated that is should be.

That the profession has not gained the recognition to which it is justly entitled, is due to the almost total ignorance of people as a whole regarding the essentials to properly fit a man for the calling of gardener; for it is commonly accepted that any man who can hoe, dig and sow is qualified to pass as a gardener. Only few people know of the years that must be spent in hard work and

study before one can even gain a fair knowledge of the fundamentals of this profession; and what learning a gardener must acquire before he can declare—I am a master of my vocation! It remains with the gardener to disabuse the minds of people that gardening is but little more than ordinary labor and to teach them that it is based on scientific principles, obtained only through long practical training. And how can you better elevate this profession in the eyes of those who do not yet know it as such, than through co-operating to bring your accomplishments nearer home to them through the activities of your national association and local societies?

Let us turn to the local societies whose influence to-day is restricted to the communities they serve. Is there any reason to doubt that through co-operation with the national association their influence, which is now purely local, could be made nation wide? Is there any reason why through such co-operation the gardeners' national and local societies should not be able in time to wield a similar influence as do the legal and medical societies and those of other sciences? These professions have been developed by the organizations which represent them; and their interests are now being carefully guarded through these organizations, which in almost every instance constitute a national and local societies working in conjunction and in harmony with each other. What these organizations have done and are doing for their respective professions can also be accomplished for the gardening profession if the same persistent effort is put forth that they employed. The local problems of a profession can usually be coped with by the local body. But those problems which concern the profession as a whole require united application to work out their solution. Until a profession is thoroughly organized this is difficult to attain; but once the national and local associations become co-operative, a base is established which provides the munitions for concerted action, and prepares the way for the profession's aggrandizement whenever the opportunity presents; and for its defense if occasion requires.

The educational possibilities and benefits that are to be derived from closer association between the national and local bodies must not be overlooked.

A contributor to the horticultural press, himself an eminent gardener, recently wrote:

"If the profession wishes to obtain that full and complete recognition to which its requirements and knowledge entitle it, still further steps must be taken to place itself in the professional class by acknowledging the value and necessity of scientific attainments. Men are graduating every year from agricultural colleges who on that account consider themselves fitted for the position of private estate managers. Employers too are in many cases under the impression that a college man is necessarily better than one without college education. though plenty of instances can be found where college men have fallen down when they have attempted to run either a farm or garden, this has not been because of, but in spite of, their college education. To produce the best results practice must be combined with science so that a man may have a knowledge of the why and how of what he does. A man with practical experience who will take the trouble to acquire a working knowledge of the scientific principles of his profession can do so with greater benefit to his practice than a man starting to learn these principles without any practical knowledge whatever. . . . Whatever value the experienced gardener may himself place upon the knowledge and skill gained through years of study and practical

work he must make up his mind that scientific education has come to stay and act accordingly."

What this writer states is a condition that the gardener of the future will have to contend with even more so than the gardener of to-day, and he must prepare himself for The young men serving their apprenticeship, and all others not too old to learn, should be encouraged in seeking scientific knowledge which they might apply to their practical experience. Most of them cannot seek it at college, so their local society should be their source to which they might look for at least part of this education which they cannot obtain through their manual training. Some of the stronger local societies have in the past conducted successful class studies in various departments of horticulture, and if sufficient interest should manifest itself, it would be no stupendous task to inaugurate a regular system of teaching in which all the local societies might participate; and the installation of such a system should in time lead to the adoption, by the national association, of a plan similar to that of the Royal Horticultural Society of England, providing for examinations to gain an association's diploma, which should bring to the possessor distinction in his profession.

Through an exchange of views and the disseminating of reports of the doings of local societies, the experience of one may aid others and the accounting of the upbuilding and success of the strong may prove helpful to the weak.

It pays to advertise! This axiom is as applicable to a profession as it is to a business or to an individual. The other sciences seize every opportunity to keep before the public eye, and the time is at hand when the oldest of all the professions must attempt to get before the public eye and remain before it. As an example, take the flower shows. Thousands attend, admire the heauty of flowers and plants, but how many give one thought to the skill that creates them? You ask why do they ignore this? Because little is known of the profession that makes flower shows possible. Publicity of it must no longer be confined to the horticultural press alone. Its progress must be heralded broadcast. It is a national task, not local, and will require the co-operation of the national and local forces.

In what I have presented in behalf of and as a plea for co-operation, I have only skimmed the surface of the subject. The field for achievement is tremendous, and opportunities will materialize as the work progresses. Immediate results are not to be calculated on. The profession has been as long as the world is old getting to where it finds itself to-day. Time will be consumed before the profession can be advanced to where its followers may come into their own, and many will have gone to join the Master Gardener before then, but the elevation of the profession is not intended for to-day, or to-morrow, but for always.

In conclusion let me say that the national association and the local societies will make but slow progress singly or co-operatively, unless the support of the members individually stands behind them. Let me urge that no gardener assume the attitude of the old Scotchman, who, on being warned that he would lose his sight if he did not stop dissipating, replied, "Well, I guess it's no matter, I've seen about all's worth while." If you feel content that the profession has treated you well and owes you nothing, remember that you owe it to your fellowman, less fortunate than you, to lend your aid in the uplift for genuine gardening.

Address by M. C. 11cl, Secretary N. P. C. Coat in A. Intimers, before the West he for ind Fairfield Sci. Conversion on the Sci. 1914.

#### CIRCULATION OF WATER IN THE SOIL.

BY MAUD DEWILL PEARL.

With the great growth of agricultural science which has taken place within recent years many ideas which have been accepted a priori as settled, have been shown to have little or no basis when investigated experimentally. With the recent publication of the results on circulation of water in the soil by a Russian, Mr. Rotmistrov, we are compelled to change our ideas concerning the rise of water from deep layers of soil to the surface by means of capillary attraction. The experiments at the Odessa Experimental Farm were such as to preclude to a very great degree any error in the work. A special borer which prevented pressure out of or into each sample of soil taken, as well as any change in the moisture content of the sample from the time it was obtained until it was tested, was used. Over 60,000 estimates of soil humidity were made covering a period of several years.

Circulation of moisture in the soil takes place in three directions: upwards, downwards and sidewards. But Mr. Rotmistrov found that the upward movement is very much less than it is ordinarily supposed to be. The field experiments were made under all conditions of soil humidity. These were augmented by laboratory experiments and similar results obtained.

The conclusion is reached that it is only when the soil is saturated that there is a rise of water, by means of capillary attraction to the surface, and that this upward movement is very slow indeed and only involves the moisture to a certain depth. Below that depth those layers only loose water upwards which are invaded by the roots of plants. "Thus, if winter wheat be sown in a field under black fallow having stored up water in a layer of over two meters (6½ ft.) there will be found by harvest time an impoverished layer of from 120-130 cm. (about 4 ft.), for this depth is the limit required by the roots of winter wheat for their development."

There is every indication that when the soil is not saturated but the upper layers are dry and loose, no water comes to the surface in liquid form whatever, but in the form of vapor. This is due to the fact that the spaces between the soil particles are filled with air. Some of the water, as it comes in contact with the air, will vaporize; the remainder, being heavier than air, will tend to sink deeper into the soil. Increasing the capillary system of the deeper layers of the soil and thus raising the level of moisture nearer to the surface is considered, by the investigator, to be a supposition which experiment will not support. In this connection he brings out a fact which is of value to all agriculturists. When preparing ground for planting, if the soil is non-saturated, rolling it with a sub-soil roller will make conditions much more favorable for the development of the seed. In the rolling process the air is forced out of the spaces between the particles of earth and at the same time a certain amount of moisture is forced in.

In regard to the movement of water downwards, Mr. Rotmistrov says: "All data point to one conclusion, viz.. that water percolating beyond a depth of 40-50 cm. (15-20 in.) does not return to the surface except by way of the roots; all the water not seized by the roots goes down into the deeper layers, moving at the rate of about seven feet yearly." The greatest accumulation of ground water he believes not to be so much from water running in to the deeper soil from hollows, where it has accumulated during heavy rainfall, from melting snow, etc., but from soil moisture, which, escaping the grasping roots of vegetation, gradually sinks deeper and deeper into the earth.

Finally, by a series of experiments, Mr. Rotmistrov

has proved that moisture penetrates horizontally in the soil at the same rate that it penetrates downward.

#### SUCCESS IN WOODLAND PLANTING.

In an article on Private Estate Forestry in the March issue, mention was made of a planting of some sixteen thousand three year old conifers during the latter part of November 1912. Some readers may be interested to know that the losses are practically *nil* being about one half of one per cent. Of course conditions were exceptionally favorable. Weather was such that root growth was doubtless made for about two months subsequent to planting and when frost came there was a good covering of snow which continued until late. The soil, too, being naturally well drained on account of its stoniness is not liable to heaving.

In reference to autumn planting in general of little trees in large numbers where artificial mulching is out of the question, one must use discretion and take all circumstances into consideration. Where soil is clayed or undrained and therefore liable to heave it would not be advisable to plant these kinds of trees at so late a date. The reason why we deferred the planting until the above date was because there was not sufficient moisture in the ground earlier to keep the trees alive and earlier planting would undoubtedly have resulted in considerable loss by drying out.

The present spring, in spite of the late date on which we could start, has been one of the most favorable for planting which I can remember, and the thirty-five thousand young trees set out in their permanent position and fifty-five thousand in the nursery, are looking remarkably well. Trees planted in previous years are putting forth very luxuriant growth and evidently intend making a considerable step upwards this season.

With reference to taxation of reforested land, the following appears to be the position in the East, so far as I have been able to get information:

Connecticut—Taxed annually upon the value of land alone, rate not to exceed 10 mills, plus a yield tax of ten per cent, on the value of timber when cut.

Maine—Not less than 640 trees to the acre three years after planting, tax exempt for thirty years.

New Hampshire—Land planted with at least 1,200 trees per acre, tax rebated, first ten years 90 per cent.; second ten years 80 per cent.; third ten years 50 per cent.

Massachusetts—Plantations of not less than 2,000 trees to the acre upon land which does not exceed \$15.00 per acre in value, exempt from taxation for ten years after trees have grown four feet.

New York—Not less than 800 trees to the acre, tax exempt for thirty-five years.

Pennsylvania—Tax exemption for reforested land now before the legislature.

Rhode Island—Land not worth more than \$25.00 per acre and planted not less than 500 to the acre, tax exempt for fifteen years.

Vermont—Reforested land tax exempt for ten years.

ARTHUR SMITH.

#### HAPPY THOUGHTS.

"Think happy thoughts, O friend, in sunny weather!
"Tis easier when the skies are deep and blue.

Let thy heart and the robin's sing together,
And thy clear eyes be tranquil as the dew.

So rich a store of memories thou shalt gather, So tranquil grow thy spirit and thy brain,

That when the winds blow fog and stormy weather

Thou shalt have sunshine though the earth have
rain."
—Selected.

# Plant Life in the Mexican Arid Regions

By Elmer Stearns.

The plant life in this region is a good example of the "survival of the fittest." The spiny plants and trees so common here did not become spinous by chance, but in each generation it was the one that was the best protected by such devices that escaped the rabbit, deer or other animal. If it was not so well protected, the large cactus, Echinocactus wislizeni, some times called "barrel cactus" on account of its size and shape, would soon have been exterminated, for this pulpy plant contains possibly two hundred pounds of food and water for a cow or a deer, and more than a month's food and water for a rabbit. But it is armed with many rows of hooked and protective spines, two or three inches long, and so strong that they can tear the flesh like a fishhook. With a knife a Mexican strips off the spines and the skin, and cuts the juicy white pulp into squares that he boils in a crude raw sugar called "peloncillo" and makes sufficient "cactus candy" to last his family for many weeks.

The great hundred-headed cactus, called by the Mexicans "pitahaya" but in our simple botanical language Cereus stramineus, with spines two inches long, produces in abundance a delicious fruit flavored like

the strawberry.

This is about an inch in diameter, with minute black seeds. It is covered with scattered groups of small spines that drop at a touch when ripe, provided you are accustomed to handling them; if not, they stick in your fingers, and break off, leaving the end in the flesh,

Another characteristic of many of these plants is the long life of their seeds. Many of these are provided with covers that preserve them from decay, and prevent the water from soaking them. Some of these plants will remain for months with their roots and leaves as dry as a bone, and when a rain comes will immediately revive and flower and bear fruit.

I have seen the "resurrection plant," Selaginella lepidophylla, growing on face of bare rocks, apparently without a particle of soil or of food material except that sometimes they cling where the roots may enter the crevices in the rocks. These grow in such abundance that they may be gathered by the barrel full. Other plants, starting with a small root, have through time become possessed of large perennial roots adapted to the storing of water and of food, so that even should there be no rain, as often is the case, these plants will yet grow, bloom and bear fruit.

Among some of the more prominent of this class may be mentioned the Jatropha macrorhiza, with a root often weighing ten pounds. The plant is about two feet high, with leaves much like those of the castor oil plant, to which family it belongs. The Mexicans use it as a medicine, by stirring their coffee with a piece of the

fresh stem.

Another plant with a big root is Apodenthera undulatae. This is related to the melon, and has similar vines. What a relief it is, when coursing a bare, dry valley where the other plants are dry and dead, to see this and Jatropha with their green leaves and beautiful flowers.

Another big rooted fellow is Maximowiozia tripartita, also of the pumpkin family, and producing a small, pulpy, red fruit about an inch in diameter. The roots are dull scurfy brown in color and grow deep into the hard dry soil.

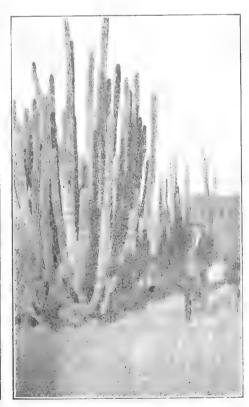
Cereus gregii is another curious and drouth resisting plant. All that you see of it above ground is a dry, brown stem that you never would suppose to be alive,



TREE-LIKE CACTUS, WELL BRANCHED AND ON A FIRM TRUNK.



SIZE OF SOME PLANTS PROUTLAR TO THIS REGION.



A NATIVE - . HE MENUS A COLUMN REGIONS.

for its appearance is that of a dead stick, with the lower part rotted away leaving only the heart wood. But far below the surface you will find a ten pound root shaped like a sugar beet. This cactus has a pretty flower that opens in the night.

Some of the desert plants have escaped extinction by reason of their strong odor. 'Polanisia uniglandulosa' is an example. It is so fetid that no animal cares to

touch it. The flowers are very pretty.

Probably Dame Nature never came nearer producing a "plantless spine" than when she made the shrubby, green spined bush, Koeberlinia spinosa, which the Mexicans call "junco." This is nothing but stem and spines, but it is so profusely branched that it forms a round head from three to four feet high. The flowers grow from these smooth, bare spines, forming umbels

of pretty little white blossoms.

All this plant life is the survival of unknown ages of change that began when this region was perhaps partly covered with water. The slow drying of these lakes permitted the plants to adapt themselves to the changing conditions. Many of these are so resistant that you may dig them up, or cut off branches and pile them in a dry room, and after several months find them still growing, throwing out new branches and even flowering. I piled some Opuntia cactus in a dry room when it was in flower and it continued to bloom and finally ripened the fruit. I have had some of the smaller succulent plants keep on growing while I was trying to dry them in my plant press. Some of these must be allowed to dry for a few days before they can be planted, otherwise they will rot in the ground. This is always done with the maguey. Surprisingly few of these growths are useless to man. The natives have cultivated and utilized them for centuries.

From the sotol is made an alcoholic drink. Many of the agaves, like the maguey, are used in a similar way. The thick, fleshy leaves, or the bases of the leaves which form fleshy bulbs, are cooked and eaten. All this class of agaves furnish a fiber, so that you may see a Mexican collecting the leaves and taking out the fiber, with which he makes strong sacks, cords, ropes

and even coarse clothes.

One of my pupils that lives in Sonora said that we could easily make an overland trip from C. Juarez, southwest, cross the Sierra Madre Mountains and come out on the Gulf of California at Guaymas, and during the journey he could get us enough roots, berries, nuts, leaves and other native foods to supply us and even enable us to live well, provided he could have a rifle for deer or for other animal food.

As I have had some days' experience with this boy on botanical trips, I know that he is as much at home in the hills and mountains as in the dining room, and as he speaks the Yaqui language he has no difficulty in finding his way among those people.

Only the magic touch of water is needed to make

these lands the richest in the world.

When we bring cultivated plants into these regions they often take on characteristics not found in those parts from which the seed has come. Great changes, are noticeable in the acidity of fruits, the greater number becoming sweeter. The long, hot days of sunshine have a marked effect upon the sugar content.

Nearly all the northern part of the State of Chihuahua, as well as Coahuila and Sonora, partake of this desert and semi-desert nature, and there is a similarity in the plants, although we find different species in each

of these three states.

Even the mountains on one side of a valley will have species different from those on the mountains of the

other side. This is due to the character of the soil. The Spanish bayonet (Yucca) thrives best on granite and quartzite rocks; the ocatilla (Fouquiera splenden) on clayey and slaty locations, while the cactus is most abundant on limestone or on lava formations. These preferences make the plants appear at times as if they had been purposely arranged in belts or rows.—Guide to Nature.

#### RAISING ORCHIDS FROM SEED.

One of the most progressive signs in horticulture is the fact that in almost every garden there is a desire to improve the different classes of plants, and to this end thousands of seedlings are raised annually. Orchids are no exception to this rule, and as seeds of most rare plants are usually offered for sale, I see no reason why the great orchid firms should not do likewise. The price, of course, would depend upon the value of the plants used for crossing and the possibilities of securing a percentage of good varieties out of the resultant seedlings. Plants with seed-pots have already been offered for sale, and if amateurs could buy seed, there would, no doubt, be a great impetus given to the trade.

Any one who contemplates taking up this interesting branch of orchidology would do well if he started with

Cypripediums, or any of the terrestrial kinds.

Seed should be sown, directly it is ripe, around the base of older plants belonging to the same genus for preference, although this is not essential. Select a specimen that will not require repotting for at least twelve months, and see that the surface is free from moss or any growth that is likely to choke the seedlings or impede germination. The soil ought to be just below the rim of the pot; then there is not so much fear of the seed being washed away. Several plants should be picked out for this purpose, because it often happens in the most up-to-date establishments that seedlings only germinate on one pot or seed-bed.

After giving the host plant a good watering, the seed may be sprinkled evenly over the soil with the blade of an ordinary knife. From now onwards the soil must never become dry, but extreme care should be exercised in giving water. If seed is sown in only a few pots, the receptacle may be stood in saucers of water until it rises to the surface, and, failing this method, a fine-rosed watering-pot can be employed. With ordinary care and attention, germination will take place in six weeks or two months, as a general rule; but the grower must not be impatient in this respect, as I have known seedlings to appear twelve months and even longer after the time of sowing the seed.

When they have made one or two tiny leaves, they may be removed with a pointed stick and placed singly in a 2-inch pot. The pots are filled with sphagnum moss, cut up rather finely, and all the large heads are picked off when sorting out the rubbish and slugs. When all the seedlings have been planted, the pots are plunged in some old peat or other moisture-holding material, and lightly sprayed over directly the moss looks dry. As growth advances, larger receptacles must be provided, and a little fibrous peat incorporated with the sphagnum moss. It is essential that the plants should be kept continually growing until they reach the flowering stage. A moist, buovant atmosphere must be maintained, especially during the spring and summer months, and a minimum temperature of 55° to 60° Fahr. Shade them from all strong sunlight, and never allow them to suffer from dryness at the roots. An important factor in the raising and growing of orchid seedlings is cleanliness.—The Garden.

### SPRAY EVERY YEAR FOR PERFECT FRUIT.

Spraying is done by the average fruit grower for but one purpose,—that of preventing injury to the fruit, whereas there is a secondary reason for spraying, which escapes ordinary observation. This second reason is for the purpose of maintaining healthy foliage on the trees, without which the tree dies. Spraying really has for its object the production of fruit which is free from damage by fungi and insects, and for the protection of the leaves from damage by the same agencies that destroy the fruit.

Healthy leaves on trees are of as much importance as healthy roots. They are organs which are essential to the life and fruitfulness of a tree, and are comparable to the stomach and lungs of animals. The roots do only half the work of nourishing a tree, and the leaves perform the other half. The roots supply the soil moisture with the mineral salts which are dissolved in it, while the leaves gather the carbon and oxygen which enter into the various compounds making up all

parts of the plant.

To perform their functions properly, leaves must be healthy, and must be exposed to the sunlight, for if they are not they will turn yellow and drop off. Leafy plants which are grown in a dark place sicken and die, because light is essential to the maintenance of their vital functions. They are unable to digest, or to assimilate the gases of the air and the juices which are supplied by the roots, unless exposed to sunlight.

If the leaf of a plant is examined closely, such as an apple or plum leaf, or of an onion, lily, or any other green plant, there will be found on the upper and lower surfaces a thin skin which can be torn off, leaving a spongy, green substance. This spongy matter gets its green color from a material called "chlorophyll," and it is upon this chlorophyll that the activity of the leaf depends. Under the influence of sunlight it collects a gas from the air which is combined with the moisture supplied by the roots and starch is made. This is stored in the leaves temporarily in a form identical with commercial starch.

But starch is insoluble in the sap of the plants or in cold water, and is of little use to the plant while it remains in that form. However, in the mystery of the leaf, by an obscure process, the starch is changed into another very common substance which is very soluble, and which is nothing more than a form of sugar. As soon as this change takes place the starch, which is, the real food substance of the plant, can be transported to the fruit, branches, leaves and roots and then by other processes be converted into other substances. In this way, then, the leaves of a tree act in essentially the same manner as the stomach of an animal, for the reason that it is here the food material which goes to supply the various tissues is digested and made over into substances which can be used.

But leaves also act in a similar manner as the lungs of an animal, that is they take in oxygen from the air and give off a gas called "carbon dioxide." This is exactly what is done by the lungs of an animal, but this process goes on very slowly in the leaves. This exchange of gases takes place through very minute holes in the skin covering the leaves, and when these holes become choked up, or the channels in the leaves through which the gases and fluids pass, become broken or in any manner interrupted, then the function of the leaf does not take place normally, and it soon dies.

This is what happens when leaves are badly mutilated by insects or invaded by the threads of various

fungi. Spray materials frequently damage the tender tissues of leaves to such an extent that they cannot properly perform their function, with the result that they drop. Everyone is familiar with this condition who has ever tried spraying peach or plum trees with strong bordeaux mixture. Then, too, most every one who grows tree fruit knows how the leaves will frequently fall from the trees about the time the fruit is beginning to ripen, because of attacks of leaf destroying fungi.

In this case the channels in the leaves through which the sap circulates either becomes so plugged with the fungous threads that there can be no passage to or from the crude and elaborated sap, or else the food material in the leaves is consumed by the fungous

parasite.

This early defoliation of trees is of such a common occurrence that many fruit growers have almost come to take it as a matter of course, and fail to associate with it any ill consequences. However, as soon as the leaves are shed, the tree becomes dormant, and cannot store up within its buds, branches and roots, the food material on which it must depend for its early growth the following year, and the development of its fruit

сгор.

A tree which drops its foliage, even half its leaves, before the fruit is gathered or before the arrival of the first frost is more or less weakened, and is not in the best of condition for the next year. Trees which are well sprayed throughout the summer and on which the foliage is maintained in healthy condition by spraying, can not only produce finer fruit, but make strong, vigorous fruit buds as well for the next season's crop. One of the things which goes a long way toward having annual crops of apples is the maintenance of healthy foliage which will remain on the tree bright and green until killed by frost.

It is as much of a crime to let the foliage on a tree drop abnormally early through the agency of fungi or insects, as it is to produce wormy or fungous infested fruit. Keeping the trees healthy in foliage by spraying is just as important as is the production of perfect fruit. The tree is not only then able to make more fruit buds for the next year, but it has the opportunity to store up in its tissues food materials which make it stronger and more vigorous and fruitful the

next year.

The man who fails to spray his trees in years when the frost destroys his crop is only half converted to the value of spraying, for he is allowing the foliage of his trees to become the prey of various pests and its effects will surely be felt directly or indirectly the following year. The secret of getting eighteen crops of apples in twenty years lies as much in maintaining healthy foliage on the trees as in any other orchard practice. —Fruit Grower.

# The Service Bureau National Association of Gardeners

Is maintained for the purpose of providing opportunities for efficient and ambitious men engaged in the profession of gardening. This department of the Association is at the disposal of those who may require the services of capable superintendents, gardeners or assistant gardeners. Address

M. C. EBEL, Sec'y,

National Association of G.r.deners,

Madison, N. J.

ly died.—C. H. S.

## **QUERIES** and ANSWERS

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.
Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

uiter. Nothing will tend to better fellowship than helping each other. Take advantage of this "Question B a."

Will you tell me if anything can be done to the bulbs of the Gardenia flowered Narcissus to make them bloom? I have several hundred bulbs which throw up one or two buds each, but I have had but three or four blossoms this year. The buds dry up and nothing happens. They have been moved to various parts of the garden where they have been tried in sun, shade, rich and poor soil, sand, clay, etc. But the result is always the same. A farmer's wife not far from here has a clump of them growing in the grass, uncared for, which yields an enormous crop every year. I tried to do the same with the result that they prompt-

Regarding inquiry as to the trouble with Narcissus: Its native home is in the grass, where it will flourish if undisturbed, for many years. It is not particular as to what kind of soil it grows in, but cow manure is the best fertilizer for it. To grow them successfully, they should be placed three inches deep, because the bulbs raise annually. Do not disturb them the first year, as it usually takes two years to mature a flowering bulb. After it has had its growth it must not be tampered with, but be allowed to gradually die down undisturbed, as the bulb is fed with the decayed parts of the flowering stems and foliage. Too frequent removal of these bulbs is a hindrance to successful flowering. I would suggest planting them in the open grass, where they will get plenty of sun and where they should show marked improvement in two years' time.-W. R. F.

What is the cause of the blight of the flowers of the English Broad Windsor bean, and is there a remedy? -L. N. G.

The English Broad Windsor beans are not successfully grown in this part of the country. Attempts in New Jersey, New York and Massachusetts to secure a good crop have always met with failure with me. The cause of the blight is probably the same as that which is doing so much damage to the bean crop generally, and authorities who have investigated say that the trouble originates with the seed, and that special care must be exercised to obtain seed free from the blight and the disease commonly known as anthracnose. The English Broad Windsor is also very susceptible to insect attacks, especially the black aphis. but this, of course, is easily combatted with the proper insecticides. I have met with most success by feeding lots of water to the roots as a strong growth is necessary.—E. D.

I would like to ask some of your readers which varieties of trained peach trees are the best to grow on walls outside; also can nectarines be grown that way and finished good? Are the English varieties of peaches and nectarines, the same as we force in the greenhouse, all right for that purpose?—H.

Will some of our readers who have had experience please answer?-Editor.

# Cedar Acres Gladioli

"Bulbs That Bloom"

GLADIOLI of merit for the private grower especially. BOOKLET full of practical information free.

## B. HAMMOND TRACY

Sacraca and the common common and the common and th

Gladioli Specialist

WENHAM, MASS.

BOX J

#### ORNAMENTAL IRON WORK

For Lawns and Gardens.

Chas. C. Force & Son.

LET US ESTIMATE ON YOUR WANTS. Madison Iron Works, Madison, N. J.

## MOONS

450 acres in Trees and Shrubs—over 2,200 kinds to choose from. These are grown wide apart, and in consequence develop into sturdy, well formed specimens so much desired for estate, street, and park use.

Send for catalog.

THE WM. H. MOON CO., Morrisville, Pa. Philadelphia Office: S. 12th St.

## HILL'S EVERGREENS

Send for Price-list. Mention this magazine

D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

#### B U

Buy your supply direct from the largest importers of Tulios, Hyacinths, Narcessus, Littles and many other Bulbs.

WRITE FOR SPECIAL ADVANCE PRICE LIST.

VAUGHAN'S SEED STORE

CHICAGO, 31 W. Randolph St. NEW YORK, 43 Barclay St.

# FOR SALE: 2 DOGS in resting position; 3 ft. high, 5 \( \text{in ft. long} \) ROOSTERS 18 inches high

GROWN of Boxwood, very dense; clipped very effective for lawn, Italian or formal gardens. For immediate shipment. On exhibition C. Zeller & Sons Nurseries, Flatbush, Brooklyn, N. Y. Write for prices to AUGUST ROLKER & SONS, 51 Barclay Street, NEW YORK. American Agents for Terra Nova Nurseries, Aalsmeer, Holland, largest growers of assorted topiary stock.

# **Pot-Grown Peach and Nectarine Trees**

for sale -for lack of room. All are in first-class condition and Riners's stock. Write for prices and list of varieties.

# A. A. MACDONALD

Duke's Farm, Somerville, N. J.

### NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists. John Young, secretary, 54 West 28th street, New York.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society.
L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 342 West 14th street, New York.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. Meets first Thursday every month, Horticultural Hall, Bernardsville, N. J.

Boston Gardeners' and Florists' Club.
William N. Craig, secretary, Brookline,
Mass.

Meets third Tuesday every month, Horti-cultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Meets second and fourth Fridays every month, County Building, Hartford, Conn., 8

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls.

Meets at Poughkeepsie, N. Y., second Wednesday every month except May and

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. J. Meets first Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass. James Whiting, secretary, Amherst, Mass. Meets second Tuesday every month.

The Garden Club of Michigan. Mrs. Edward H. Parker, secretary, 139 Sey-

burn avenue, Detroit, Mich. The corresponding secretary will notify members of date and place of meetings.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Paterson Park, Baltimore, Md.

Meets second and fourth Monday every month, Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Meets monthly irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th street and Columbus avenue, New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. Meets first and third Saturday every month, October to April; first Saturday every month, May to September, Horticul-tural Hall.

Lenox Horticultural Society.
G. II. Instone, secretary, Lenox, Mass.
Meets first Saturday every month.

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary. Meets first Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Meets fourth Friday every month, Monmouth Boat Club, Red Bank, N. J.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette street.

Meets first Monday every month, Montreal Florists Exchange.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown,

N. J.

Meets at Madison, N. J., second Wednesday every month, except July and August, 8 p. m.

Nassau County Horticultural Society. Ernest Westlake, secretary, Glen Cove, N. Y. Meets second Wednesday every month, Pembroke Hall, Glen Cove, N. Y., 6 p. m.

New Bedford Horncultural Society. Jeremiah M. Taber, secretary. Meets first Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street, Orange, N. J.

Meets first Monday every month, Jr. O. W. A. M. Hall, Orange, N. J., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London. Conn.

Meets second Thursday every month, 38 Main street, New London, Conn.

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Meets second and fourth Tuesday every

New York Florist Club. John Young, secretary, 54 W. 28th street New York.

Meets second Monday every month, Grand Opera House.

North Shore Horticultural Society. Jas. Slater, secretary, Manchester, Mass. Meets first and third Fridays every

North Shore Horticultural Society.

North Westchester County Horticultural and Agricultural Society. I. J. O'Brien, secretary, Mt. Kisco. N. Y. Meets third Thursday every month, except June, July and August, at 8 p. m.: December, January and February, 3 p. m.. Odd Fellows Hall, Mt. Kisco.

Oyster Bay Horticultural Society.
Fred Kirkham, secretary, Glen Head, N. Y.
Meets fourth Friday every month, Board
of Trade, Oyster Bay, N. Y., 8 p. m

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 711 Westbank Bldg.

Meets first Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, 497 Bradford street, Pasadena, Cal.

Meets first and fourth Friday every month.

Paterson Floricultural Society. Sebastian Hubschmitt, secretary, 61 Seventh avenue, Paterson, N. J.

Meets first Tuesday every month, Romaine Building, 8 p. m.

Pennsylvania Horticultural Society. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut street,
Paterson, N. J.
Meets first and last Friday every month.

Working Man's Institute, Madison avenue, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets first Tuesday every month, Horti-cultural Hall, Philadelphia, Pa., 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. Meets first Thursday every month, Fort Pitt Hotel, Pittsburgh, Pa.

Rhode Island Horticultural Society. A. C. Miller, secretary, 7 Irving avenue, Providence, R. I.

Meets fourth Monday every month, Providence Public Library, 8 p. m.

Shelter Island Horticultural and Agricul-

tural Society.
Fred Kirkham, secretary, Shelter Island, N. Y.

Meets first and third Thursdays every month.

Southampton Horticultural Society. William McLeod, secretary. Meets first Thursday every month, Memorial Hall, Southampton, N. Y.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarytown, N. Y. Meets last Tuesday every month, except December, Corporation Building, Tarrytown, N. Y., 7:30 p. m. Annual meeting last Thursday in December.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park. N. Y.

Meets first Wednesday every month, Parish House, Tuxedo Park.

North Shore Horticultural Society.

E. Bollinger, secretary, Lake Forest, Ill.
Meets first Friday every month, City Hall.

J. L. Mayberry, secretary, Washington D. C.

Meets first Monday every month.

Westchester and Fairfield Horticultural Society.

J. B. McArdle, secretary, Greenwich, Conn
Meets second Friday every month, Dor

an's Hall, Greenwich, Conn., 8 p. m.

Yonkers Horticultural Society Thos. Mahoney, secretary, Yonkers, N. Y. Meets first Friday every month, Holly wood Inn, Yonkers, N. Y., 8 p. m.

#### GARDENERS DIARY

American Institute, New York. Dahlia show. September 22-24. Chrysanthemum show. November 4-6.

American Peony Society. Annual Peony show, American Art Institute, Chicago, Ill., June 12-13.

American Sweet Pea Society. Sweet Pea Show, American Museum of Natural His tory, June 27 and 28.

Elberon Horticultural Society. Chrysanthemum show, Asbury Park, N. J., November 3, 4, 5.

Lancaster County Florists' Club, Lancaster, Pa. Fall show, November 5.7.

Lenox Horticultural Society, Lenox, Mass. Summer Show, July 22 and 23. Fall Show, October 22 and 23.

Massachusetts Horticultural Society, Horticultural Hall, Boston, Mass. Sweet pea show, July 11-12. Gladiolus show, August 8-9. Dahlia show, September 12-13. Fruit and vegetable show, October 3-4. Chrysanthemum show, November 5-8.

Monmouth County Horticultural Society. Fall Show, Red Bank, N. J., October 28

Morris County Gardeners' and Florists' Club. Fall show, Madison, N. J., October

Nassau County Horticultural Society, Glen Cove, N. Y. Rose show, June 9. Dahlia show, October 6. Chrysanthemum show, October 29, 30,

New Jersey Floricultural Society. Sweet Pea Show, Orange, N. J., July — Dahlia and fruit show, October -

Newport Horticultural Society, Newport. R. I. June show, June 24 and 25. Summer show, August 12 and 13.

Oyster Bay Horticultural Society, Oyster Bay, N. Y. Summer show, June 18. Dahlia Peas. show, September 30-October 1. Chrysanthemum show, October 30.

Royal Horticultural Society, London, England. Spring show, Chelsea, May 19-21; Summer show, Holland House, June 30-July 1-2.

Society of American Florists. Out-door exhibition, Boston, Mass., August 18-21.

Westchester and Fairfield Horticultural vote of thanks. Society. Fall show, New Rochelle, N. Y.

#### OYSTER BAY HORTICULTURAL SO-CIETY.

The regular meeting of the Oyster Bay Horticultural Society was held on May 27, THE WESTCHESTER AND FAIRFIELD 1914, with J. T. Ingram in the chair.

Wm. Alex Proctor, Charles Zanor, Rocco Yanuchi and W. W. Hutchinson, Jr., were elected to membership, while three petitions for membership were received. There were some fine exhibits of flowers, and John vase of Lilacs, Mme, Lemonic, James President Robert Williamson called the

# A Bright New Book of 182 Pages for 1914

Telling the Plain Truth about BURPEE-QUALITY SEEDS, is mailed Free of Cost to Gardeners everywhere upon Application to W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia

Frank Setroecia first for String Beans.

Frank Kyle Thanks of Society for Iris: A. Walker Cultural Certificate for some extra fine Darwin Tulips, and James Duckham Thanks of Society for a fine collection of named Iris.

James Duthie spoke on the growing of Calceolaria and the other exhibitors gave some information on the growing of their

A very interesting discussion arose concerning the caterpillars that are destroying the oaks and hickory in this section and it was unanimously voted that the society do all in their power to combat the same.

It was also agreed to use the scale of points in the forthcoming shows.

FRED KIRKHAM, Secy.

#### NASSAU COUNTY HORTICULTURAL SOCIETY.

The monthly meeting of the Nassau County Horticultural Society was, held Wednesday, June 10, at Pembroke Hall, Glen Cove, President H. Gaut in the chair. Messrs, Chas. Parr and Henry Wenzel, both of Glen Cove, were elected to active membership, and there were two petitions for membership received. Mrs. W. H. Porter, Glen Cove, was elected as an honorary member. Special prizes for the society's shows were received from A. G. Hodenpyle, Esq. Locust Valley, and Hitchings & Co., Elizabeth, N. J. John Scheppers & Co. donated \$50 as a special prize for Darwin Tulips for next spring. Judges for the monthly ex hibits: S. J. Trepess, J. Adler and W. Hutton. Awards were made as follows:

12 H. P. Roses, 1 variety, F. Honeyman

12 largest strawberries, Hy. Jones first, 12 mixed Peonies, Hy. Jones first.

Honorable mention was awarded to the following:

H. Gaut, for 3 vases Sweet Peas.

H. Boettcher for 1 vase mixed Sweet

H. Boettcher for vase Aquilegia Chrysanta.

W. Gray for bunch asparagus.

Certificate of culture, John Scheppers & collection of Peonies.

Mr. James Duthie, Oyster Bay, who is a past master in the art of Dahlia culture. gave an interesting and instructive essay on Dahlias for exhibition, cutting for the house and garden decoration, which was very much enjoyed by all present. At the close Mr. Duthie was given a very hearty

Exhibits for next meeting, Wednesday, July 8, Sweet Pea night, 12 pink, 12 white and 12 any other color

HARRY JONES, Corresponding Secretary.

# HORTICULTURAL SOCIETY.

There was a fine attendance of members present at the regular monthly meeting of the Westchester and Fairfield Horticultural Society at their rooms in Doran's Hall. Devine received the society's prize for a fine Greenwich, Conn., Friday evening, June 12.

Duthie first for pot of Calceolaria, and meeting to order promptly at 8 o'clock. Two new members were elected and several propositions for membership were received. Several letters were read from friends of the society offering substantial additions to the premium lists of both summer and fall shows to be held by the society. The Exhibition Committee reported everything in readiness for the summer show to be held on the hospital grounds at Portchester, N. Y., June 19 and 20. An attractive schedule has been issued. and we trust that there will be a large display of flowers, fruits and vegetables. The Fall Show Committee reported progress.

Mr. M. C. Ebel, secretary of the National Association of Gardeners, was present, and came prepared to discuss the co-operative movement now in preparation between the local societies and the national body, and explain any features of the movement of which the members of our society were not conversant.

Mr. Ebel read the report of the proceedings of the meeting recently held by the Co-operative Committee of the National Association and added his personal plea for the support of the Westchester and Fairfield Society urged the members present to consider the question carefully. able interest was manifested in the speaker's remarks, and after a lively discussion it was unanimously decided that the Westchester and Fairfield Society would support any movement tending to the advancement of horticulture and of the gardening fraternity. The president accordingly appointed a committee of three members who will endeavor to look after local conditions and work in conjunction with the Co-operative Committee of the N. A. G. It is not to be expected that this movement is to be a

# June is the Joy Month

at Andorra The gorgoous flower display, against the glowing and variant green, and silver of evergreen and tree, make these incide nurses is a vast living catalogue. frique nurseres a vast living catalogue 4 the plants and shrubs that are best

See Andorn in June it will be an ex-creace. By train, by trolley, by auto-nobile over perfect roads, come to An

adorn the learne

write us now for immediate help. or for plans to work out in summer or tall. We are here to serve, that is the Artdora Way. Our new planting booklet is ready, may we send a copy to you?

#### ANDORRA NURSERIES

Wm. Warner Harper, Proprietor Box O, Chestnut Hill, Philadelphia, Pa.



"cure all" for everything affecting the con-{and also Mr. Baeran, of the Sanders Estate, } dition of the gardener-the fixing of wages, hours, etc. and should not be confounded with the labor unionism which obtains with more or less success in the building trades and other lines. We feel that the question of wages, etc., on private estates will always remain a matter for personal adjustment between the gardener and his employer, governed entirely by the requirements of the position and the qualifications of the gardener. The advancement of horti-culture in America is not a passing fancy, but is growing every year to greater pro-portions. Perhaps the co-operative movement may not benefit the profession immediately, but surely will in the near future. The nature studies in the public schools, special courses in the colleges, the widespread garden club movement, are all important factors, and we think that the sun has surely set on the day of the horse and cow variety of gardener and the handy man type, who are now in charge of what should be good positions. The education of the public will relegate these "land-scape destroyers" to their proper positions. and the men with the intelligence required of the successful gardener and conscientious worker in horticulture will occupy the positions of trust with a good salary and not be in danger of being classed as a common laborer when he refers to himself as a gardener. It looks very rosy in print, "boys," but we do not think it impossible.

An attractive feature of this meeting was the competition open to assistant gardeners only for the silver first prize and bronze second prize medals offered by the H. F. Michell Company of Philadelphia, Pa., for the best arranged centerpiece for a dinner table composed of outdoor flowers and foliage to be arranged in the hall. There were four contestants, and the result was four very neat, tasteful and artistic arrangevery neat, tasteful and artistic arrange-ments. The first prize was awarded to David B. Ridpath, assistant to James Stuart, Mamaroneck, N. Y.; second prize awarded to Andrew P. Clarkson, who is with Alex. Marshall, Portchester, N. Y. Neil MacInnes, of Mamaroneck, and Adam Smith, of Rye, N. Y., were each accorded a hearty vote of thanks. The usual nonhearty vote of thanks. The usual noncompetitive exhibits were not so numerous at this meeting, but were of fine quality. Alex. Marshall was awarded a cultural cer tificate for a splendid specimen plant of Miltonia Vexillaria; the same for a fine spray of Cattleya Mendeli. Thomas Aitcheson was highly commended for a fine specimen plant of Oncidium Wentworthiannum. P. W. Popp was awarded a vote of thanks for a vase of hardy roses, climbing American Beauty, novelty of recent introduction. This variety makes a good pillar rose, and is a clean grower. Will become popular when better known. Next meeting will be July 10, 1914.

P. W. POPP.

#### NEW LONDON HORTICULTURAL SOCIETY.

The regular monthly meeting of the New London Horticultural Society was held in its rooms in Main street, Thursday, June 11. President Fuller presided. After the usual business ceremony President Fuller introduced Miss Amy Cogswell, of Norwich, who gave a most interesting essay on the early gardens of New England, also touching upon English gardens of the Stuart and Cromwell periods. The lecturer was given a rising vote of thanks. Messrs. Jordan, Flowers, Baeran, Smith and Maloney made up some fine exhibits. Sweet peas from open gardens were shown by Mr. Flowers

John Maloney, gardener to the Guthrie Estate, had arranged an exquisite vase of Iris. ete Stanley Jordan showed snapdragon "Ramsburg Pink," also the sweet-scented Lilian Monadelphum from the Hardy gar-

The schedule for 1914 is now ready and may be obtained from the secretary. John Humpbrey. STANLEY JORDAN.

#### TUXEDO HORTICULTURAL SOCIETY.

The monthly meeting of the Tuxedo Horticultural Society was held in the Parish House on June 3, President David McIntosh in the chair.

The secretary of the Ball Committee gave his report, the ball being a great financial success and one of the finest the society has

A letter from the National Association of Gardeners was read asking us to appoint a committee of three to work in cooperation with the co-operative committee of the N. A. G. Messrs, Tansey, Millar and T. Wilson were appointed on that committee. The Executive Committee has had the preliminary schedule printed, and any who wishes a copy can have same by applying to the secretary.

The Fall Show which is to be held in the Tuxedo clubhouse on October 30 and 31 and November 1, is shaping to be one of the finest the society has ever held.

We had with us Mr. J. A. Muller, of Julus Rochrs Company, who read a very instructive paper on the culture of Orchids. Mr. Muller had with him some very blooms of the rare varieties of Cattleyas, Miltonias, Odontoglossums and Oncidiums, and showed many of the others on photographs. The paper was thoroughly enjoyed by all those present, as Mr. Muller certainly did his subject justice.

Three new members were elected to membership-Thomas Knight, Alexander Roy

and Harry Watson.

An exhibit of twelve spikes of Eremurus Himaliacus was staged by Mr. Emile Barth. which the judges awarded a certificate of culture. The society will discontinue their monthly meetings during July and August.
THOS. WILSON, Secretary.

#### TARRYTOWN HORTICULTURAL SOCIETY.

A regular monthly meeting of the Tarrytown Horticultural Society was held May 20. President Elliott presiding. A beautiful display of flowers cut from hardy shrubs and herbaceous was staged. Judges Mooney and Featherstone awarded first prize to Mr. D. G. L. Reid (A. Golding, superintendent), and second prize to Miss B. Potter (G. Wittlinger, superintendent) A cultural certificate was awarded to Mr D. G. L. Reid (T. Morris, gardener) for a vase of Mrs. Hugh Dickson's sweet peas, and one to Mr. W. B. Thompson (S. R. superintendent), for a plant of Candler. cattleya jigos, and a certificate of merit for new Marguerite sport of Mrs. Saunders. Mrs. C. Wilson received honorable mention for a vase of pink snapdragons, and a vote of thanks was extended to Mr. A. Golding for a bouquet of wild flowers and a vase of wild eyprediums. Several new members wind cyprediums. Devital has a server were admitted to membership at this meeting.

THOS. A. LEE,

Rep. Secly.

#### LIBRARY LIKE ROSE GARDEN

Marked success crowned the annual rose exhibition at the Public Library, Rahway, N. J., recently, the largest number and most beautiful specimens yet shown being in evidence. All parts of the city were represented by the exhibitors. Among the largest and most attractive collections were those of E. M. Squier and Miss Henrietta Dotzert, the former having fifty-five and the latter fifty-two varieties. The "Entende Cordele" variety shown by Miss Dotzert was one of the most unusual specimens ex-

Other exhibitors were as follows: Mrs. H. Kip Woodruff, sixteen varieties: Fred Garbonati, seventeen; Mrs. W. H. Cloke, nine; J. Malcolm Brookfield, ten; Miss Annie Shotwell, seven; Miss A. W. Lupton and Miss Helen Clarkson, six each; Mrs. J. A. MacClary, five; Mrs. John B. Labat, Avenel. eight; Joseph Urmston, twenty; Mrs. J. L. Brown, six; J. W. Saling, five; Mrs. William Ferrill, four; Miss Eizzie Garthwaite, two; R. H. Rolph, one; Mrs. Haas, one; also a large collection of poppies and sweet William; Mrs. Edward S. Savage, collection of Spanish Iris.-Journal.

#### LENOX HORTICULTURAL SOCIETY.

The regular monthly meeting of the Lenox Horticultural Society was held in the Town Hall, Lenox, on Saturday evening, June 6. President McConnachie occupied the chair, and there was a good turnout of the members. Mr. E. Edwards was elected a member. A committee of three were appointed to co-operate with the National Association of Gardeners, namely, Mr. A. J. Loveless, Mr. E. Jenkins, Mr. S. W. Carlquist. Mr. Thomas Proctor was awarded a certificate of merit for Clarkia (Queen Mary) and a diploma for Clarkia (Salmon Queen). President McConnachie then introduced Mr. Burton N. Gates, assistant professor in bee keeping at Massachusetts Agricultural College, who gave a very interesting lecture entitled "More Bees for Massachusetts." Mr. Gates said bee keepmg was the oldest art under the sun, and was first introduced into America through the port of Boston in 1634. The speaker also mentioned how valuable bees were to the fruit grower for fertilization of various fruits such as melons, cranberries, etc. To keep bees through the long severe winter used to be very trying to the bee keeper. but by using modern methods all the difficulties have been overcome. He also said that the best type of bee is the Italian bee. Various questions were asked Mr. Gates after the lecture which he seemed only too pleased to answer, and at the finish he was accorded a rising vote of thanks

JOHN MUTR. Assistant Secretary.

# **ALPHANO HUMUS** Nature's Soil Builder

Send for Convincement Book

Alphano Humus Co 17 G. Battery Place, New York

# BON ARBOR

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection. We can prove it.

Bon Arbor No. 1 is put up as follows:

5 lb. package making 150 gallons, exp. extra 1.80

25 lb. package making 750 gallons, exp. extra 6.25

50 lb. package making 1,500 gallons, exp. extra 12.50 100 lb. package making 3,000 gallons, exp. extra 20.00

Barrels from 250 to 300 lbs., 18c. per lb.

contradiction of the second of



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon.  $1\frac{1}{2}$  gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

# BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.

# MR. GARDENER:

# You Will Never See It Replaced

YOU KNOW how long it has taken that tree to attain those stately proportions.

YOU KNOW how irreparable the loss should it die.

YOU KNOW how imminent is the danger from insects and fungi.

YOU KNOW how devitalising, how unsightly, and how difficult to reach is that dead wood.

YOU KNOW how surely fatal are those neglected cavities—neglected decaying stumps, neglected wounds, neglected borer holes are the causes.

Then Why Wait Longer? Time Is Precious.

CALL US IN

WE HAVE the KNOWLEDGE, the EXPERIENCE, the MEN, the TOOLS.

#### JOHN T. WITHERS Inc.

Landscape Architect and Forester

1 Montgomery St.

Jersey City, N. J.

ROSES, Ampelopsis Veitchii, Clematis, Japanese Maples. Boxwood, all in pots and ready to ship.

Specimen Evergreens 6 to 8 ft. high with large Ball and Burlapped. 15 Cars nursery grown Maximum Rhododendrons for immediate shipment.

Write for Prices

# International Nurseries, Inc.

1905 West Farms Road, New York City

PHONE 4028 TREMONT.

SERVICE DE LONG DE LA COMPANION DE LA COMPANIO

# Gardeners All Over the World Use

**APHINE**, for spraying against all sap-sucking insects, such as aphis, red spider, thrips, mealy bug and soft scale; and for cleansing palms and decorative stock generally.

NIKOTIANA, for fumigating, a nicotine solution which does not fill the house with smoke as does tobacco paper or dust. It is vaporized in pans over small lamps, or by painting the steam pipes.

FUNGINE, to control mildew, rust or bench rot in the greenhouse, a spraying material; an infallible remedy. It does not stain foliage as Bordeaux or lime and sulphur, but cleanses it.

**VERMINE**, to rid the greenhouse soil of eel worm, root maggots and other soil vermin, will be found most effective. Used according to directions it is not injurious to vegetation.

# For Out Door Spraying of Trees, Shrubs and Hardy Plants

SCALINE, an oil and sulphur composition—three in one—an insecticide, fungicide and scalicide combined, destroys San Jose, Oyster Shell and other scale, red spider, larva of the aphis and locust borer. Now is the time to spray to protect your trees and shrubs against the ravages of the various insect pests.

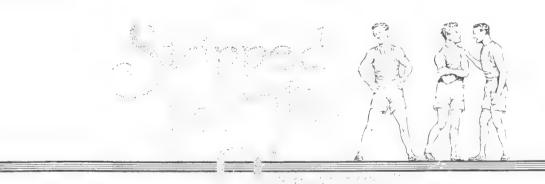
Get in the habit of using our products and you will use no other

For Sale by all Seedsmen

# Aphine Manufacturing Company

Manufacturers of Agricultural Chemicals

MADISON, N. J.



T the contact of the contact of the contact of the race, discards all unnecessary clothing so he will have all possible freedom of action.

In designing the U-Bar greenhouse construction, we did exactly the same thing—it was stripped for the running. We got it right down to a racing basis.

This could be done, because the U-Bar performs the work of both the rafter and the roof bar.

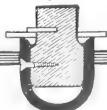
This U-Bar and roof bar combination is so strong that we don't have to roude the entire bar eag large.

 $\mathcal{C}_{i} = \mathcal{C}_{i}$  and  $i = 1, \dots, n$  . The second structures,

Stripped for the running as the U-Bar house is, it is the lightest of houses and produces quicker growth and of a better quality. It is only natural that it should It's only a plain every-day common sense result.

If you want a house as light as a bubble, but stronge than any house built, then you want the U-Bar house

catalog. Or send



U-BAR GREENHOUSES

PIERSON U-BAR CO

ONE MADISON AVE. NEW YORK CANADIAN OFFICE TO PHILLER SCAFE SUPPLIFIED

# alinett Bros.

# Pot-Grown Strawberry Plants

Burnett Bros

## NOW READY FOR SHIPMENT

Most dealers recommend planting Strawberries in August. However, we hope you will see the advisability of setting pot-grown plants as early in July as possible and believe if you follow our advice the results will be much more satisfactory.

Our list includes all the newest and best standard varieties, extra strong, healthy plants. We exercise the utmost care in packing for shipment, which is of great importance to the purchaser. Place your orders early.

#### American Everbearing and Fall Fruiting Varieties

公司人會以会人會以會人會以會人會以多人多以多人多

AMERICUS. Per 100, \$8.00.

PAN AMERICAN. Per 100, \$10.00.

PROGRESSIVE, \$2.50 per doz., \$15.00 per 100.
SAINT ANTOINE DE

SAINT ANTOINE DE PADOUE. Per 100, \$5.00; 1,600, \$45.00.

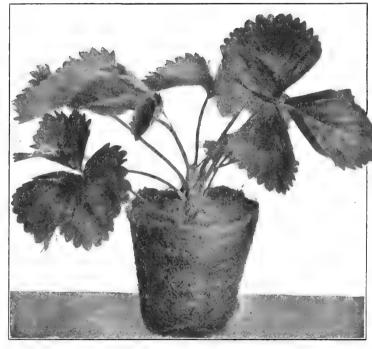
SUPERB. Stock limited this season. Per 100, \$10.00.

#### New American Varieties of 1914

JOE JOHNSON-THE FUTURE LATE BERRY. \$2.50 per doz. \$10.00 per 100.

THE HUB. Per dozen \$2.50: per 100 \$12.50.

## BULBS FOR EARLY FORCING



Grown Specially For Our Trade

#### Laxton's English Varieties

大學以養人會 以養人 動列

13

W. S.

多形婚

BEDFORD. Per doz., S1.00: per 100, S7.50. EEDFORD CHAMPION. Mid-season. Per doz., S1.00: per 100, S7.50.

GIVON'S LATE PRO-LIFIC. Latest of all. Per doz., \$1.00; per 100, \$7.50.

LAXTON. Per doz., \$1.00; per 100, \$7.50. ROYAL SOVEREIGN. Unequaled for early forcing. Per doz., \$1.00; per 100, \$7.50.

NOTE. We wish to impures upon all intending parchasers of polygrown Str. whenly plants that all collistick, is exceptionally strong and well rooted, ORGER AT ONCE and we will reserve stock, Give date of slip out required.

HARDY PERENNIAL FLOWER SEEDS

#### POT GROWN STANDARD VARIETIES

	100	1000	100	1000	100	1000
AUGUST LUTHER	\$4.60	\$35.00	JESSIE\$3.50	\$30.00	SHARPLESS . 53.50	\$30.00
BEDER WOOD	. 3.50	30.00	JOHNSON'S EARLY 3.50	30.00	UNCLE JIM 3.50	
BISMARK	3.50	30.00	KANSAS 3.50		UPTODATE 3.50	
BRANDYWINE	3.50	30.00	MARSHALL 3.50		WM. BELT 3.50	
BUBACH		30.00	NEW HOME 4.00		AUTO 4.00	
CLIMAX		35.00			COMMONWEALTH 4.00	35.00
			NEW YORK 4.00	35.00	FENDALL 4.00	35.00
CLYDE		35.00	NICK OHMER	30.00	MEAD 5.00	45.60
DOWNING'S BRIDE		35.00	OOM PAUL 4.00	35.00	NIMROD	90.00
EXCELSIOR	3.50	30.00	PARSON'S BEAUTY 3.50	30.00	PAN-AMERICAN 3.50	30.00
GANDY	. 3.50	30.00	PRESIDENT 4.00	35.00	SUCCESS 4.00	35.00
GLADSTONE	4.00	35.00	SAMPLE 4.00	35.00	TWENTIETH CENTURY 4.00	35,00
GLEN MARY	3.50	30.0)	SCOFIELD 4.00	35.00	SILVER COIN 5.00	45.00
HUNN	3.50	30.00	SENATOR LUNLAP 3.50	30.00	SAINT-ANTOINE DE PADOUE, 5,00	45.00

STRAWBERRIES NOT MENTIONED IN THE ABOVE LIST WE CAN SUPPLY AT ADVERTISED PRICES. WRITE FOR OUR DESCRIPTIVE STRAWBERRY LIST—MAILED FREE

# BURNETT BROTHERS, Seedsmen

98 CHAMBERS STREET

(Between Broadway and Church St.)

NEW YORK

TELEPHONE, BARCLAY 6138

OF YOUR PROPERTY



#### THE GARDENERS' CHRONICLE OF AMERICA.





THERE is a lot of "b the " about greenh ascornstructions. Yes, a lot of it!

So anxious are the building concerns to be considered leaders in things new—that they are often lead to take some little unimportant improvement to their construction and exploit it as if it was going to revolutionize the entire greenhouse building code.

Only the other day I read an ad, of a concern who made the astounding statement that they had made a tremendous improvement in greenhouse construction by abandoning for all times the clamp column fittings and adopting a "bolted through" one. It was exploited as a great discovery and something entirely new. As a matter of fact it has been used by another concern for at least thirty years

for at least thirty years.

Talk all you will about various improvements in private greenhouse construction, but when you get right

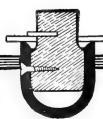
down to brass tacks, there has been no really important development since the introduction of the U-Bar. No one denies that. Ever since then (in spite of all the stones thrown at it) all builders have promptly adopted as far as possible U-Bar structural features. The curved eave and 24-inch glass, just for example. But putting a curved eave on a house does not make it a U-Bar curved eave house. There is only one U-Bar curved eave house, and that's the house made with the U-Bar. Other curved eaves may look like it, but that's the only way they are like it.

Send for our new catalog. Or send for us. Or both.



PIERSON U-BAR CO

ONE MADISON AVE. NEW YORK.
CANADIAN OFFICE TO PHILLIPS PLACE MONTREAL





THORBURN salesmen are on the road now booking orders on Bulbs for Fall delivery.

You will receive a postal from us a day or so before one calls.

If you have changed your address recently, please drop us a postal.

J. M. Thorburn & Co. 53 Barclay St., New York

#### SPECIAL NOTICE

If our salesman has not called to see you, please notify us.

Pot-Grown

# STRAWBERRY PLANTS

All the New and Standard Varieties

Transplanted

## CELERY PLANTS

# THE MACNIFF HORTICULTURAL CO.

56 Vesey St., New York

TRANSPORTER HOLD LEADING TO THE CONTROL OF THE TRANSPORT OF THE TRANSPORT

# **CARNATIONS**

POT AND FIELD GROWN

Gorgeous: Matchless: Mrs. Cheney and Other Novelties

\$20.00 per hundred

Also

A full line of Standard Sorts
All Ready Now
\$10.00 per hundred

CHARLES H. TOTTY MADISON, NEW JERSEY

# Fall Planting

UR new Fall planting list is ready for mailing and we want you to receive a copy. Hardy Roses and Herbaceous Perennials are the principal subjects and a visit to Cromwell will satisfy you that we are amply able to satisfy your requirements.

If you are in need of field grown Carnations let us know. We have 60,000 this season, and owing to the unusually favorable weather conditions these plants are exceptionally nice.

A.N. PIERSON INC.

CROMWELL GARDENS

CROMWELL CONN

# Strauberry Plants That Bear This Fall

A MERICUS, the leader of the fall-bearers, will give luscious, large sweet Strawberries, equal to June fruit, if you set pot-grown plants in July and early August.

#### BIG, POT-GROWN PLANTS

\$1.50 per doz., \$10.00 per hundred, delivered

SEND YOUR ORDER FARLY.
Ask for our Mid-Summer Catalog of Strawberries, Vegetable and Flower Seeds, Plants and Bulbs, Mailed free.

Weeber & Don, Seed Merchants, 114-L Chambers St., New York, N. Y.

Mornicana ne no la la la callanguagne di la la la la menor la co di

# ORCHIDS

Freshly Imported

We have received and unpacked the following in fine condition: Cattleyas — Percivaliana, Gaskelliana, Speciosissima; Dendrobiums—Formosum, Nobile, Densiflorum, Schuitzii (novelty); Vandas—Coerulea, Batemannii, Imshootiana, Luzonica (novelty); Phalaenopsis—Amabilis, Schilleriana and Spothoglottis plicata. Many more to arrive.

Write for special list No. 55.

LAGER & HURRFLL, Summit, N. J.

# GREENHOUSE PAINTING AND GLAZING

My many years' experience while engaged with the leading greenhouse builders, and my employing only first-class men, places me in position to undertake any new or old work which you may contemplate.

Let me estimate on your work.

#### FRANK TIDABACK

Greenhouse Painter and Glazier TARRYTOWN, N. Y.

On larger properties, nothing has been more notable than the tendency to plant

## Meehans' Mallow Marvels

in groups of a hundred or more of each of the several colors; securing in each a profusion of immense blooms, in glorious shades of red; or soft pinks or white.

Pink, \$35.00 per hundred White, \$35.00 per hundred Red, \$50.00 per hundred

Thomas Meehan & Sons
Box 65 Germantown, Phila.



# JULIUS ROEHRS CO.

Nurserymen and Florists
RUTHERFORD, N. J.

Visit our establishment and inspect our Greenhouses containing the finest products. Also see our large increased Nursery and view our splendid Evergreens, Trees and Shrubs.

# COMPETENT GARDENERS

¶ The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

**NEW YORK CITY** 



# DREER'S POT-GROWN STRAWBERRY PLANTS

The best varieties, both new and old, and best methods of planting to raise a full crop of strawberries next year are fully particularized in

# Dreer's Mid-Summer Catalogue

Also Celery, Cabbage, and other vegetable plants. A select list of decorative plants, Palms, Ferns, etc.; Seeds of old-fashioned Hardy Perennials and other flowers for summer sowing. Seasonable Farm Seeds, etc.

Write today for a copy, FREE, and please mention this magazine.

HENRY A. DREER
714-716 CHESTNUT ST., PHILADELPHIA, PA.

# **BOBBINK & ATK**

WORLD'S CHOICEST NURSERY AND GREENHOUSE PRODUCTS

WE ARE GROWING NURSERY AND GREENHOUSE PRODUCTS

WE ARE GROWING NURSERY AND GREENHOUSE PROD

UCTS FOR EVERYBODY AND SUITABLE FOR ALL PARTS

OF THE COUNTRY. WE SHALL BE GLAD TO HAVE

INTENDING PURCHASERS VISIT OUR NURSERY

AND INSPECT THE QUALITY OF STOCK WE

GROW. OR SUBMIT THEIR LIST OF

WANTS FOR PRICES.

THE FOLLOWING PLANTS FOR OUTDOOR PLANTING, INTERIOR AND EXTERIOR DECORATIONS ARE AMONG OUR SPECIALTIES.

HYDRANGEA OTARSA IN ITBS We have many laundreds of specimen plants in bloom and bud for summer decoration at \$2.50, \$3.50, \$5.00 and \$7.50

LARGE LEAFED EVERGREENS, ENGLISH LAURELS AND AUCUBAS, for summer decorations.

ENGLISH IVY. We grow many thousands in trained forms and ordinary plants from two to eight feet tall.

eight feet tall.

HARDY OLD FASHIONED FLOWERS, Several acres of our Nursery are exclusively devoted to their cultivation.

PEONIES and IRIS. We have a complete collection ready for August and September delivery. BOXWOOD. We grow thousands of plants in many shapes and sizes.

OUR WONDERFUL NEW EXBRIER HYBRID GIANT FLOWER-ING MARSHMALLOW Everybody should be interested in this hardy old fashioned flower. It is perfectly hardy and will grow everywhere.

scribing the above, WE PLAN AND PLANT GROUNDS AND GARDENS EVERYWHERE
WITH OUR "WORLD CHOICEST NURSERY AND
GREENHOUSE PRODUCTS."

NURSERYMEN, FLORISTS AND PLANTERS RUTHERFORD, N. J.

STRAWBERRIES. STRAWBERRIES. Potted and held-grown in all the leading varieties. We have many thou sands of strawberry plants and are in a position to fill orders of any 8/7c. Ask for special list.

EVERGREENS, CONIFERS AND PINES. Many acres of our Nur-sery are planted with them. All are balled and burlapped and have splendid root system.

BAY TREES, PALMS, and other plants for Conservatories, Interior and Exterior decorations.

BULBS AND ROOTS. We grow and import quantities of bulbs and roots from all parts of the world. Autumn Planting.

PLANT TURS, WINDOW BOXES, ENGLISH GARDEN FURNITURE AND RUSTIC WORK, We manufacture all shapes and sizes.

ASK FOR OUR HILUSTRATED GENERAL CATALOG NO. 45, de-ribing the above, also our AUTUMN CATALOG.

Pot Grown Strawberry Plants

Pot grown Strawberry Plants if planted now will turnish a good crop of fine bernes next season

The plants we offer are all well grown, true to name and healthy stock.

AUGUST LUTHER. Extra early, very productive and good size BEDERWOOD. One of the best

BRANDYWINE. Large solid

erinson fruit, midseason

BUBACH, Large berry of dark midseason.

CHESAPEAKE, A very large late variety

COMMONWEALTH. It is not discovered, large berry, late.

EXCELSIOR. Extra early and

hardy variety GANDY. Farge, bright glossy crimson fruit, very late

NN. The rown, late The Parge Consumbly HUNN.

MARSHALL, large dark crim-son color, undeason NEW YORK, Color lark red, the flavor, indeedson

NICH OHMER. Manemote ireat.

OOM PAUL One of the largest terries; very productive

SENATOR DUNLAP, fruit of good size fine color, in decision SUCCESS. Sweet mild flavor and long bearer

large and long bearer WM. BELT. Very 1919 finet, midseason to late

Any of the above varieties sent by express Doz. 75 cts., 25 for \$1.25, 50 for \$2.00, 100 for \$3.50.

For new varieties and full description see our Fall Catalogue, Mailed Free, Send a postal for it.

W. E. MARSHALL & CO.

166 W. 23rd Street

NEW YORK

Incorporated 1911

ANDREW K. KENNEDY. Pres. and Treas.

# KENNEDY & HUNTER SEEDSMEN

Pot Grown Strawberry Plants Now Ready

All Standard Varieties \$3.50 per 100

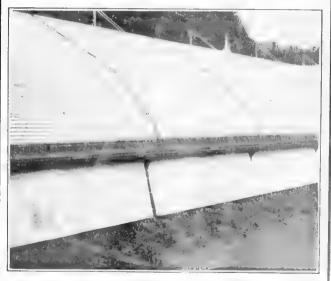
156 West 34th Street One block from Penna, Station New York

"ONLY THE BEST"

Todding ton's

Fall Bulbs: Fall and Summer Bearing Strawberry Plants and Seasonable Seeds and Sundries MAILED FREE UPON APPLICATION.

ARTHUR T. BODDINGTON, Seedsman 342 W. 14th ST. NEW YORK CITY



# Lathe Roller Blinds

Cur be preliding it along to a fittle being private extracted this property to place in the country, many extracted to the country, many extracted to the country. made of the finest material obtainable

#### HARRY BALDWIN

Greenhouse Lathe Roller Blinds Specialist

18 CHURCH STREET NEW ROCHELLE, N. Y.

# The Contents---July, 1914

Electricity and Plant Culture By Arthur Smith		Growing Strawberries in Hills	ΩΩ
Propagating the Aucuba	7.4	By F. M. Sherman	
When to Prune Shrubbery	74	Chinese Grafted Chrysanthemums	
The Soil and Disease The Snapdragon	75	July By David S. Miller	88
		Training Wall Fruit Trees	89
The Old Man By Walt. Mason		Eidelweiss in American Gardens	
"Just as Old"	<b>7</b> 5	By John W. Coates, Jr.	89
Growing Interest in Public Rose Gardens .	76		90
The Smith Memorial	76	Convention Railway Gardening Association .	90
Where Brains Are Needed By S. E. Kiser		The Oldest Chemical Fertilizer	00
The Sweet Pea of the Past and Future	77	By Karl Langenbeck Massachusetts Horticultural Society Exhibition	
Planting Peonies	78		91
Our Cover Illustration . By W. H. Waite	78	Convention American Park Supt's. Convention	91
Auriculas from Seed	78	Queries and Answers	92
Progressive Curiosity		National Associations and Local Societies .	93
American Sweet Pea Society Show	79		94
American Gladiola Society Schedule	80	Nassau County Horticultural Society Annual	0.4
Opportunity	80	Rose Show	94
The White House Gardens, Washington, D. C.	81	Westchester and Fairfield Horticultural Society	0.4
Editorials	84	Annual Summer Show	94
Presage of Woe	84	Newport Horticultural Society Annual Show .	95
Doings of National Cooperative Committee .	85	Oyster Bay Horticultural Society Annual June	
Summer Meeting National Assn. of Gardeners.	85	Show	96
National Association Notes		New Bedford Horticultural Society June Shows	96
Among the Gardeners		New London Horticultural Society Rose Shows	96
A Spirit Worthy of Encouragement .	86	Tuxedo Horticultural Society	97
Reason of Cheap Gardeners	86	Connecticut Horticultural Society	
A Gardener's Grievances		Nassau County Horticultural Society	97
What Can You Do?	87	Westchester and Fairfield Horticultural Society	97

# Pedigreed Pansy Seed

Pansy Seed secured from the best growers known to us after exhaustive tests.

# FAMOUS NON PLUS ULTRA STRAIN Gigantic Size, Heavy Texture, Brilliant Colors

Our Non Plus Ultra Pansy is a mixture containing the largest, hand-somest and most perfect varieties ever sent out. The beautiful coloring and variety of marking give a bed of these Pansies a most brilliant appearance. The seed has been saved from the greatest assortment of types, including only the best of Giant Cassiers, Bugnots, Trimardeaux and Giant English, French and German strains. Finest Mixed, pkt 15 cts. 34 oz. \$1.50, oz. \$6.

#### GIANT PANSIES Separate Colors

Our strains of Giant Pansies are procured from specialists in Europe, who devoted their entire energies toward producing size, very heavy

texture and strong stems, which can be accomplished only by a selection of the best plants for seed purposes, and therefore must not be confounded with strains offered by some seedsmen at lower prices.

	Pkt.	1' 0Z.	Oz.
Fire King. Red and yellow, large frown eye	.\$0.15	\$1.25	\$4.00
Emperor William. Deep blue	15	1.25	4.00
Lord Beaconsfield. Violet, shaded white	15	1.50	5.00
Light Blue. White center	149	1.00	3.50
Light Blue	10	1.00	3.50
Pres. Carnot. Pure white petals, deep blotch .	.15	1.25	4.00
Purple	. ,10	1.00	3.50
Pure Yellow	10	1.00	3.50
Snow-White	.10	1.00	3.50
White, Dark eye	10	1.00	3.50

#### PANSIES IN MIXTURE

Pkt.	1'4 OZ.	Oz.	Pkt,	1/4 oz.	Oz.
Masterpiece, Superb new class of blotched Pansies, with large plooms mostly undulated or curled			Bugnot Strain, Large, stained, mixed \$0.25	\$1.50	\$5.00
Brilliant colors	\$2,00	\$7,00	Cassier's Strain. All colors mixed	1.00	3.50
Madame Perret, Early flowering, tragtent, espe-	4	,	Odier. All colors mixed	1.00	3.00
	1.50	5.00	Fine English Mixed	.50	1.50

OUR FALL BULB CATALOG HAS BEEN MAILED TO YOU: IF YOU DID NOT RECEIVE A COPY, PLEASE DROP US A CARD.



30-32 BARCLAY ST. NEW YORK CITY

# GARDENERS' CHRONICLE

## OF AMERICA

DEVOTED TO THE SCIENCE OF FLORICULTURE AND HORTICULTURE

ADOPTED AS THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

Vol. XVIII. JULY, 1914. No. 3.

# Electricity and Plant Culture

By Arthur Smith.

Of all the natural forces the most fertile in its subserviency to the necessities and luxuries of man is undoubtedly electricity. No degree of familiarity, however long continues, can efface the sense of wonder at the effects of the many applications to which this mysterious force can be put. Whether the mystery surrounding the chemical character of electricity will ever be solved or not is an open question. It is possible that in the future the elements, if there are any, which enter into its composition, may be stated in chemical terms, but at the same time it is rather doubtful. Whether electricity be a simple or compound substance is, however, not of great practical importance, at any rate so far as this article is concerned. It will therefore be unnecessary to consider the technology of electricity, merely stating that it is universally present in nature in a more or less latent state—in a state of quiescence and equilibrium—but this state is one which is very easily disturbed and it appears that however great the quantity of electricity a body may contain it is ineffective unless transformed into a current. It may be assumed that frictional, voltaic and animal electricity are one and the same thing, the distinction merely being in the mode of generation.

The very general distribution of electricity throughout almost every substance, and the state of activity it displays around growing vegetation, has led at various times to the belief that were means devised to divert a more than usual quantity of it through plants, their growth could be much accelerated.

At present it is impossible to define to what extent the growth and development of living organisms depend upon electricity, but we know at least that it is more or less beneficial. The fact has been definitely established that electric currents exist in the soil and in the plant; in reality wherever chemical activity occurs electric currents are likely to be present, although these currents may be comparatively insignificant and require very delicate instruments for their detection.

Probably many have noticed that rain accompanied with a discharge of electricity through the atmosphere has a far greater beneficial effect upon growing plants, grass for instance, than a similar amount of rain under like circumstances, but without the electricity. The reason of this is that the form of electrical discharge known as lightening produces nitric acid and ammonia by causing their elements to combine in the atmosphere; the rain which generally accompanies it brings these valuable plant-foods down to the soil. This power of electricity is now being made use of in the manufacture of nitrates for commercial purposes to take the place of nitrate of

soda. From this it is easily understood that a current of electricity passing through the soil will have a similar effect in causing the combination of the elements contained in the above plant-foods and thus rendering them available.

The idea of using electricity in an artificial way for this purpose has frequently occurred, as it has long been known that plants respond to electrical stimulus, and many investigations have been made with a view of ascertaining practical means of realizing the benefits of this force.

The first record which we have of any experiments in electro-culture is of one made by Dr. Mainbray, of Edinburgh, in 1747, who passed the electric current through plants in pots. In 1840 a lady, whose name has not been handed down, conducted some experiments which mainly consisted in causing a constant flow of frictional electricity through a portion of the ground in her garden, with the effect that vegetation did not cease during the winter upon the plot under the influence of electricity, and that what snow fell upon it during the continuance of the experiment never remained as it did upon the rest of the garden around. This result caused Dr. Forster, of Elginshire, Scotland, to place a small galvanic battery in action upon a grass plot, and the effect produced fully confirmed the results of the lady's experiment. This and the results of further experiments by Dr. Forster led him to try the effect of collecting the free electricity of the atmosphere by means of wires suspended upon poles thirteen feet from the ground, and conveying it through it through the soil by means of buried wires. The result upon a plot of twenty-five square rods, part of a field of barley, was that the electrified plot produced more than double per acre than the rest of the field. A full account of this experiment appeared in the Times (London) of October 2, 1844. One of the reviews in a leading article at the time used the expression, "He turns the materials of the thunderbolt to manure.'

Although these experiments were successful, as far as they went, as proving the beneficial action of electricity upon plant growth, yet the question remained in abeyance for nearly fifty years. About the year 1890 Monsieur Baral, of Garonne, France, applied electricity to the culture of potatoes, tomatoes and hemp. A row of hemp, subject to the influence of the electric current, grew eighteen inches taller than the rows not electrified. A kilogramme (2.2 pound) of potatoes planted in the path of the current produced 21 kilogrammes of very large, healthy tubers, while the unelectrified patch only gave 12½ kilogrammes from the same weight of seed.

The electrified tomatoes ripened their fruit eight days before the others. Another French experimentalist, Abbe Nollet, appears to have been the first to prove that the application of electricity to seeds hastens their germination. The value of the electric light in hastening the blossoming period of plants was first brought into notice by the late Sir William Siemans, who used it with great success upon flowering plants and fruit in his own greenhouses.

The subject therefore naturally divides itself into the direct use of the current applied to the soil in which the plant is growing, and the use of the electric light as a substitute for the sun in cloudy weather or at night. Experiments along both these lines have at a comparatively recent date been carried out by the Massachusetts and other agricultural experimental stations in this country.

In these experiments it was found that electricity exerts an appreciable influence upon the germination of seeds, and 55 per cent. more germinated in forty-eight hours than those not subject to the current, this being the average of five species; but it was found that the application of electricity does not increase to any appreciable extent the total germination, nor does it, as some have claimed it does, awaken to life seeds which have lost their vitality. The experiments with the direct application of electricity to plants in growth were all successful in raising larger crops, and in the case of tomatoes they ripened earlier. The following shows the effect of various electric currents upon the growth of radishes. The duration of this experiment, which was carried out at the Massachusetts station, was thirty-nine days.

Treatment. Total per cent. gained.

Direct current; one cell; copper-plate electrodes. 74.07

Direct current; one cell; wire electrodes. 23.15

Atmospheric electricity; copper-plate electrodes. 53.61

Copper and zinc-plate electrodes connected. 182.38

Interrupted induced current; copper-plate elec-

Unelectrified plants were taken as the standard in calculating percentages.

The atmospheric electricity was obtained by means of a pole extending thirty-five feet above the ground, on the top of which was projected twenty-four small copper points distributed in two circles, the outer one having a radius of thirty inches. The copper points were all connected with a single copper wire leading to one of the copper-plate electrodes, the other electrode being grounded. The strength of the currents used in this experiment upon radishes varied from .05 to 1 milliampere.

A series of similar experiments were also carried on with lettuce, giving the following results:

Average Number current Total Treatment. of in milliper cent. plants. amperes. gained. 94 22.78 Direct current (weak)... 0.184Direct current (stronger). 0.367 40.76 46 36.48 Copper and zinc plates... 48 0.214 Atmospheric electricity ... 47 not taken 39.22

Among the remarks accompanying the report of these experiments it was stated, "The effect which electricity has in accelerating the germinating of seeds and the growth of plants is positive, and in hundreds of experiments conducted in different manners we have seldom obtained any negative results. We have, moreover, conclusively proved that the alternating current is much superior to the direct as a stimulator.

"The question naturally arises, in what manner does electricity stumulate plants, or, in other words, how are

accelerated growth and accelerated germination to be explained? There are numerous agencies which act as stimuli to seeds and plants about which little is known as to how they stimulate.

"Some of the theories pertaining to electrical action, however, possess interest and are worthy of being mentioned. Frecke held the idea that electricity was the great moving force of animate creation, and identical with nervous influence. Marat was of the opinion that electricity exerted a marked influence upon soil fertility. The action of electricity upon oxygen, as is well known, gives rise to ozone, and some botanists have believed that the production of ozone in the seed is the prime factor in accelerating germination and growth."

For the greater part of two centuries, therefore, electro-culture has been the subject of experiment and always with more or less successful results. During the past year the question has again been pushed to the front by the experiments which have been carried out in France, upon which an interesting article appeared in the Larouse Mensuel (Paris) for March, 1914.

The writer describes an apparatus called a geomagnetifier, an invention of Lieutenant Basty, which is formed of a metal rod terminating at a point composed of an alloy which is both a good conductor and nonoxydizable. The length of the rod varies, according to the plants cultivated, from one to two yards, and the end is buried in the ground to a depth equal to that normally attained by the roots. The results announced are very encouraging and confirms those obtained by previous experimentors, in obtaining a shorter period of germination, reduction in the time of reaching maturity and a much larger yield than under ordinary conditions. Thus, spinach sown March 21 and subject to the action of the geomagnetifier, germinated March 31, was gathered May 15, and gave a much better yield. Other plants from the same sowing not electrified did not germinate until April 8, and were not ready to gather until nearly in June, while the yield was only a quarter as much. In the case of strawberries the fruit ripened earlier and was larger in size.

Of course, this apparatus although given the above high sounding name differs nothing in principle from the means used in the eighteenth century and many times since by experimenters for the purpose of collecting atmospheric electricity. One point which these latest experiments have brought out which is entirely new is that plants were rendered immune from diseases due to micro-organisms. In the case of potatoes while diseased tubers were prevalent in field, a portion electrified contained scarcely any. A plot of beets was artificially infected with what is called in the article "a serious and injurious contagious disease," the name, however, not being given, and the electrified portion received no dam-In the case of potatoes the non-treated part contained a considerable greater number of diseased tubers. This bears out the claims made some fifteen years ago by the promoters of a system for electrically treating sewage that by running the sewage over metal plates charged with high voltage electricity, typhoid and other disease germs were absolutely destroyed and the effluent could with safety be then discharged into a stream. The expense of this process was, however, too great too secure its adoption.

The Journal of the Board of Agriculture (England), Vol. XX., contains a report of some experiments with potatoes at Dumfries, Scotland, during 1912, which fully confirms the benefits of electricity in plant growth.

While there is without a shadow of doubt a fundamental basis for the theory that electricity is capable of decomposing certain plant foods existing in the soil and

thus rendering them more available, and, also, as noted above, of causing the combination of the elements of nitric acid, yet at the present moment it does not appear possible for any one to define with certainty how and why electricity has a beneficient action upon growing plants. But as it has been proved that electricity affects the protoplasm of the plant, there is no doubt that it is to the effect upon the protoplasm that we must probably look for the solution of the problem. The effect can be seen in plants that show protoplasmic movements, such as, for instance, the Chara, one of the families of the Cryptogameous plants having no vascular tissue, by which it has long been known that weak currents stimulate protoplasm and induce accelerated movement; whereas strong currents retard or stop such movements, and if too stong, the protoplasm is killed.

There is a good deal of interesting data being accumulated concerning electrical influence upon plant growth, but the question cannot be said to be yet out of the experimental stage, although the advantages derived from the direct application of electricity to vegetation

are unquestionable.

The writer in the French magazine above mentioned concludes his article by expressing amazement that in view of the remarkable results produced, farmers and gardeners do not universally adopt this treatment for their crops, and he attributes their failure to do so purely

to ignorance.

While there is no disputing the fact that the use of electricity upon growing crops will produce beneficial effects in more than one direction, the universal adoption of its use depends entirely upon its practicability, whether the resulting increased crops will pay for the increased expense. It is obvious for one thing that the ordinary operation connected with cultivation and harvesting would be greatly interfered with and rendered more expensive in the case of a field studded by poles and wires. In a garden where all operations are by hand, the inconvenience would not be of any moment. In the latter case the question to be answered by experiment is whether the results will compensate for the trouble in erecting the apparatus irrespective of cost, also whether if this increased cost were put into extra plant food, equal results would be produced without the attendant trouble of fixing the poles and wires.

It must be understood that electricity supplies no plant food, its effect appears to be in enabling a plant to make

greater use of the food within its reach.

The use of electric light in connection with plant growth is in a far more advanced position. Its effect has been investigated at, amongst other places, the agricultural experimental stations of Concord, Miss., and West Virginia, the arc light being used at the former, and the incandescent at the latter.

In the case of plants being grown under the influence of this light, the effect seems to be produced through the hastening and prolonging the act of food assimilation owing to the extention of, what practically amounts to, the hours of sunlight, and the substitution of the light for the sun in cloudy weather. A large number of species of vegetables, flowering and foliage plants have been experimented upon. In the experiments with the arc light it was soon found that the naked light exerted an injurious influence upon many plants. This is believed to be due to the presence of the ultra-violet rays, the spectrum of the electric light being unlike that of sunlight. A glass screen or ordinary globe was found to cut out the injurious rays and to allow the beneficial rays to pass through. By the use of the light the flowering period of many species of plants was hastened, Easter lilies being advanced as much as ten days. With vegetables the best results were obtained upon lettuce, plants of which were a week or more in advance of those in the unlighted house. The results with the use of the incandescent light were to a great extent similar, but the balance of evidence is in favor of the arc light.

The practical utilization of the electric light upon a commercial basis is now an accomplished fact so far as lettuce is concerned. In the New England lettuce houses, especially in the neighborhood of Boston, a gain of time is obtained during the winter season sufficient to enable one more crop of lettuce to be grown in the same time than where the light is not used.

In the case of flowers the use of the light has not been found to be commercially profitable, although the flowering period was considerably hastened. In this connection it does not do to use the light too early in the life of the plant, or flowers will appear before the plant is strong enough to grow them to their proper size.

Up to the present there have not been, so far as we are aware, any experiments made of the use of this light in the open air and one would not venture to foretell what

possibilities may exist in this direction.

So far as the use of electricity itself to plant growth is concerned it cannot be denied that there is evidence enough to support a belief that in time to come it will occupy as important a place in agriculture and horticulture as it does today in other directions.

#### PROPAGATING THE AUCUBA.

If there is one evergreen shrub more prominent than others as particularly adapted for cultivation in confined town and suburban gardens, it is the Aucuba. A native of Japan, A. japonica in growth, size and color of the leaves is a very variable shrub. The numerous forms of Aucuba have been given varietal names by nurserymen, and it would not be difficult, should one wish it, to obtain a collection of at least twenty named sorts. In habit the plants vary from 2 feet to 10 feet in height. There is a very marked difference in the size and coloring of the leaves. Some growers prefer the large, shiny pale green leaves beautifully spotted with yellow; others choose the rich, shiny green leaves, suggestive of the Laurel. In some sorts the edges of the leaves are entire, while in others they are elegantly toothed.

Shade does not harm the Aucuba; it will thrive under tall trees as well as the Ivy. Such a good-natured plant is the Aucuba that, in addition to thriving in most positions, it will also grow in nearly all soils. The Aucuba makes a beautiful and attractive lawn specimen; it is also useful as a screen, and an ideal subject for the shrubbery border.

This Japanese shrub is also interesting, there being two sexes. The male and female flowers are borne on different plants, not like most of our favorite shrubs, both on the same plant. In addition to its attractive foliage, the female Aucuba bears ornamental red berries larger than those of the Holly; but to get these one must grow Aucubas of both sexes, as the pollen from the flowers of the male plant is necessary to fertilize those of the femal?

otherwise no berries are produced.

Propagation from cuttings is the usual and quickest means of increase. Quite large branches root readily in a close propagating frame, preferably with a little bottom heat. Under glass, Aucuba cuttings may be inserted at any time. In the open border October and November is the best time to put in cuttings. In a moist propagating frame the cuttings will root in any light material-sandy soil, fibre, leaf-mould or coarse sand. By inserting large shoots such good plants are available for potting up in two months suitable for use at once in a window box.—Exchange.

#### WHEN TO PRUNE SHRUBBERY.

Much may be added to the beauty and attractiveness if the shrubs about the lawns and gardens are kept in a thriving condition. This may be done, or at least their beauty may be greatly enhanced, by judicious and timely pruning. It requires but little time, if the work is done every year, to keep the bushes growing and developing in a uniform manner; while if allowed to grow without attention for a few years, it may take a number of years of careful pruning to bring them into shape again.

When a shrub is set is the time to shape it, to a certain extent. If it is properly pruned at that time, subsequent cutting and shaping will be reduced to a minimum. The grace and beauty of most shrubs lie in their drooping habit. Nature, in the main, will attend to this. Sometimes, however, certain shapes or designs may be desired. While this is something for a skillful gardener to attend to, yet certain work along this line can be done by the careful amateur. The correct methods to be pursued with a general collection will have to be learned

largely by observation.

It is, of course, true that work like the removal of dead limbs, branches that chafe or are badly crossed and superfluous interior shoots, may be done at almost any time of the year. The general pruning should, however, be determined by the time of flowering. In this respect our common shrubs are divided into two classes. The spring-bloomers, such as lilac, most of the spireas, snowball and weigela form their buds in the late summer or early fall of the previous year, upon wood of that year's growth. It is evident that winter or spring pruning, therefore, would sacrifice some of the best branches and would also induce the growth of new shoots at a time when the energy of the shrub is needed to develop the flowers.

This class, as can readily be understood, should be pruned in summer after the blooming period is over. New wood will then be induced to start and make a vigorous growth for buds the next year. The blossoms are borne at the ends of terminal or lateral shoots, hence the pruning induces more laterals to sprout, resulting in a larger number of flowers. The amount to be cut varies with different sorts. At least take as much as would be

taken if all flowers were cut with long stems.

Some of the summer bloomers are rose, althea, hibiscus, hydrangea and tamarix. With these the flowers form on wood of the current year's growth. Pruning should be done at any time after the leaves fall and before the sap starts in the spring. None but the most hardy kinds should be severely cut back in the fall. With the tenderer sorts, such as some of the roses, pruning should be done in the spring after danger of severe cold is well past. As a rule the late bloomers may be pruned more than the early bloomers, as flowers are usually the object sought rather than abundant foliage. A vigorous growth in the early spring must be obtained and nothing but pruning will bring this about.

Roses should be pruned in the spring. Ordinarily a severe cutting is best, yet with certain strong-growing kinds too much pruning will induce the bush to "run to growth" rather than to the production of flowers. Note the condition of the canes and cut each one off a half inch above a strong bud pointing in the desired direction. It is usually best to save buds that point outward, as the shoot will continue in the direction the bud points.

On the average about two-thirds of the previous season's growth should be cut away. Weak growing varieties may be cut even more. The hybrids and teas will need more severe pruning than the hardy sort. With these, after the winter protection has been removed, cut

out all the dead and "winter-killed" canes, even if it be necessary to cut to the ground. It is a fact that the severe cutting back of roses will not result in so many flower's, but they will be larger and better. If still larger blooms are desired, cut off some of the buds as they begin to develop, leaving only the terminal buds to form flowers. If the hardy roses are desired to produce a profusion of bloom, milder treatment than that recommended above is necessary. When cut flowers are desired, the more severe pruning is best.

The climbing roses may be pruned down to the last season's growth each spring and the new shoots trained as desired. If there is plenty of room, however, very little pruning will be necessary. Simply cut out the dead wood and occasionally some of the older branches, and the ramblers will keep in good condition.—Exchange.

#### THE SOIL AND DISEASE.

That many diseases arise from soil conditions was formerly a widespread belief, and is still asserted by many authorities. A writer in The Medical Council (Philadelphia, June) asserts that this theory is outworn, and that the soil, except where abnormally infected, is a conserver of health, not a harborer of disease. The theories that malaria is due to soil conditions, he says, have utterly collapsed, and of the diseases once thought to originate in the soil, including "military fever," typhoid, vellow fever, and more recently pellagra, erysipelas, beriberi, dysentery, tuberculosis, tetanus, anthrax, ameboid dysentery, cholera infantum, and epidemic meningitis, it is now fairly certain that none is there present normally. The organisms of some may infest both soil and water, but these are only "carriers" in such cases, not generators. To quote:

"As medical science advances it is more than probable that the soil as a generator of disease will be dismissed from consideration. It is quite true that buried accumulations of filth may proliferate various organisms, but that normal soil does so except as is taught in agricultural books is not probable. The normal bacteria of the

soil are not pathogenic to man. .

"After going through much authoritative literature, we are unable to find many authenticated instances of pathogenic bacteria normally occurring in the soil. More and more is it being thought that tetanus bacilli largely come from the intestinal tracts of the domestic animals and do not proliferate in the soil, although the spores may long remain viable. . . . Practically the only bacillus of which distinct claims of pathogenic activity have been asserted, and which may proliferate in tropical soil, is the B. cloacæ. But recent study shows it to be merely a colon bacillus of cattle which resists the lethal action of sunlight, and thus is very slowly killed. . . .

"As a matter of fact, normal soil is a natural and beneficent bacteriological laboratory, various nitrifying bacteria promoting growth and others decomposing humus and organic matter, thus rendering it available as plant food. But when natural conditions are disturbed, the bacterial balance is also disturbed; and fungi, molds, algæ, and other organisms proliferate, to the detriment of man and animals. Note, it is not so much bacteria but other organisms which proliferate. Disturbed soil needs to be cultivated, and cultivated well. And yet the processes of artificial cultivation are often productive of vegetable forms of diminished resistance, as note the phylloxera disease of cultivated grapes, the various blights and the root growths so destructive of highly developed plant life. . . .

"The soil is a great conservator of health, not a menace; its life and death processes are among the most wonderful in nature. 'Back to the soil' needs to be a health slogan as well as an economic one. But what kind of soil? The best answer is that of modern scientific farming, which conserves the soil as well as man. Science was long a very artificial thing; but it is now being naturalized. And the encouraging thing is that science pays in efficiency and dollars and cents. Scientific farming is not only the most profitable, but it is one of the greatest conservators of public health.

"And yet how foolish some sanitarians are! One alleged scientist recently stated that he would as soon his children played with poison as with earth, as all of the pathogenic bacteria came from the soil. And another 'city builder' wishes that not one blade of grass be allowed to grow within the limits of the city. Children know better, and 'scientists' should.

"Let us get back to the soil and the sun! Let us cease contaminating the soil and the atmosphere, and sanitation will progress by leaps and bounds. Sanitarians are, perforce of circumstances, compelled to make insanitary conditions tolerable; but what a great work could be done were these unnecessary conditions removed and the sanitarian allowed to devote his attentions more to man in a proper environment! Man himself is the great problem, after all. This world is a place 'where every prospect pleases and only man is vile.' Too long have we blamed our troubles upon this good old earth that we have abused so sorely. Let us begin with ourselves and let the earth wag along as the Creator intended it should."—Digest.

#### THE SNAPDRAGON.

H. J. Moore.

The Snapdragon-Antirrhinum from anti, like, and rhin, a nose or snout. Few if any of our well known garden flowers are more satisfactory generally than the one in question. For filling beds or borders of any size it is useful and will furnish a beautiful display of bloom from July until the end of October. In color the flowers are so varied as to render possible the most beautiful schemes, and lasting so long, successfully bridge over the entire summer and autumn. For cutting the snapdragon is also useful, and being easily raised, flowers are at the command of young and old. Two very popular types of snapdragons are tall Antirrhinum majus, and the dwarf or Tom Thumb kinds—A. majus manum, these latter being but varieties of the former which is likewise the progenitor of most of our valuable garden forms. In addition to the foregoing there are many handsome species less known perhaps, but nevertheless excellent border or rock garden plants.

Being of perennial habit the snapdragon may be increased by cuttings as well as by seeds, and while it is generally increased by the latter method, by cuttings is the only certain way to increase many colors or varieties, September being the proper month for the operation.

Insert the cuttings in a bed of sand in a cold frame, water carefully and shade from sunlight. Keep the frame closed, ventilating only during the day when the temperature is high or when moisture condenses excessively on the plants and on the inner surfaces of the frame. When rooted transfer the plants to boxes or pot them off singly, and place them in a cool greenhouse until the spring. By propagating early in the spring good bedding plants may also be obtained from cuttings—bottom heat at this time being of course essential.

Plants of named and well established varieties should be raised from seed, the quickest and most satisfactory way being to sow them indoors during March or April, and after transplanting into flats, thence into four inch pots to place the plants into cold frames to harden off preparatory to bedding out. Those who have no facilities for raising the seedlings indoors may sow the seed outside as soon as the weather and soil conditions will permit. These plants will, of course, flower somewhat later than the foregoing, but will nevertheless afford a pleasing display. Magnificent border effects may be created by planting the tall growing kinds towards the rear and the dwarf ones along the front of the border. For this purpose, when purchasing seed, the heights of the plants should be carefully noted and indicated on the label bearing the name of the variety. The distance apart must be governed by the height of the plant, overcrowding being deleterious. Fifteen to eighteen inches may be regarded as approximately right. Seeds should be sown outdoors in patches very thinly, the seedlings being thinned out as desired.

The Antirrhinum is not solely a garden subject, for if sown in the greenhouse during any of the fall months and potted commensurately as it grows, excellent plants in full flower may be had during the late winter and all through spring, while for cutting purposes a bench filled with plants will amply repay the labor. It is customary for many florists to lift the plants from the garden ere they are injured by severe frosts, and after removing the old flower stems to plant them in benches for the winter's supply of flowers, a very economical practice, and therefore to be commended.—Canadian Florist.

#### THE OLD MAN.

Be kind to your daddy, O, gamboling youth; his feet are now sluggish and cold; intent on your pleasures, you don't see the truth, which is that your dad's growing old. Ah, once he could whip forty bushels of snakes, but now he is spavined and lame; his joints are all rusty and tortured with aches, and weary and worn is his frame. He toiled and he slaved like a government mule to see that his kids had a chance; he fed them and clothed them and sent them to school, rejoiced when he marked their advance. The landscape is moist with the billows of sweat he cheerfully shed as he toiled, to bring up his children and keep out of debt, and see that the home kettle boiled. He dressed in old duds that his Mary and Jake might bloom like the roses in June, and oft when you swallowed your porterhouse steak, your daddy was chewing a prune. And now that he's worn by his burden of care, just show you are worth all he did; look out for his comfort, and hand him his chair, and hang up his slicker and lid.-Walt Mason.

#### JUST AS OF OLD.

Just as of old, the moments come and go, The Spring with its flowers, and the Winter with its

The hours pass away, the seasons warm and cold, And Time runs along today just as of old.

But, ah! how we change as the years come on anew, The heart grows strange that once was fond and true, And dear friends part, while others pass away. And sadly sighs the weary heart, day after day.

But just as of old, the many stars appear, And greet us again as in some forgotten year, And flowers bloom anew and rivers ever flow. Just as they did in days of yore, long, long ago.

# GROWING INTEREST IN PUBLIC ROSE GARDENS.

The recent rose show held in Syracuse breaks all previous records for attendance, interest and merit of exhibit. Imagine over two hundred varieties of the queen of flowers skillfully staged. They made the spacious hall a bower of beauty and fragrance. Mr. Robert Pyle, vice-president of the American Rose Society, gave a beautifully illustrated address the first night of the show on "Famous Rose Gardens I Have Visited." Two successive years Mr. Pyle has delivered the annual address and acted as judge. Rev. Dr. Edmund M. Mills, the president of the society, is a Methodist, but a poll of the members would show the Methodists in a decided minority. People of all faiths are found in this society, which has in four years grown to have an active membership of nearly three hundred. Mr. James M. Gilbert, a prominent member of the First Church, took first honors in winning the silver medal offered by the American Rose Society for the best exhibit. Every village of any considerable size, except one, within thirty miles of Syracuse, has members in this organization. Through the inspiration of this society hundreds of new rose gardens have spring up, and many already in existence have been greatly enlarged and improved. Among the direct results of the work of the year Syracuse is to have a municipal rose garden, and Syracuse University is planning for a rose garden which will probably be located in front of the Carnegie University Library building .-Extract from Northern Christian Advocate, of New

#### THE SMITH MEMORIAL.

As the committee (appointed at the Chicago convention, with regard to the erection of a suitable memorial to the late William Robertson Smith in the National Capital) has been continuously at work, since appointment, and has decided that the monument should take a form useful as well as ornamental in the shape of a memorial building to the father of the S. A. F. charter.

The committee is very desirous of obtaining subscriptions. The chairman of the committee will be pleased to receive them, no matter how small, and will give proper receipt for the same and place it in bank at 4 per cent. interest until such time that the memorial can be erected or contract awarded. The committee has hopes of receiving some large subscriptions, but feels that the florists of the United States should show their interest first before the large contributions are called for.

The committee, therefore, asks that you now send in your subscriptions addressed to Mr. William F. Gude, Chairman, 1214 F. street, N. W., Washington, D. C., so that the memorial may take tangible form at the earliest possible date.

During the week just previous to Decoration Day, the lot and graves in beatutiful Rock Creek Cemetery, containing the bodies of Mr. and Mrs. William Robertson Smith, were nicely trimmed and planted through the courtesy of Mr. George W. Hess, superintendent of the United States Bontanic Gardens, under the direction of Mr. W. F. Gude, Washington representative of S. A. F. and O. H.

On top of both graves are planted some Wichuriana roses, as Mr. Smith had often expressed a desire of having memorial roses planted on his grave. At the head of each grave a nice specimen of Anthericum Variegatum Scotch heather is planted, and at the foot Colluna Vulgaris. Each grave is outlined with a border of nice plants of Anthericum Variegatum, Aphipogon Jaburan

Variegata. The whole makes a very effective setting and quite a contrast to the long neglected spot. No doubt the Memorial Committee, which met in Chicago in 1912, will do what they can to erect some suitable stone on this beautiful lot, which is located in one of the most notable cemeteries in the United States. Just a short distance from the Smith section is the world's famous St. Gauden's masterpiece, the Statute of Grief; also the quaint old Episcopal Church, the brick of which was brought from England more than a hundred years ago, and still used daily, stands but a short distance in front of this spot. Many of the notable families of the United States have mausoleums nearby.

#### From Washington Post.

William R. Smith, the late superintendent of the United States Botanic Garden, and "the dean of American horticulture," who died in 1912, lived again last night at a business session and lawn party given in honor of the Florists' Club of Washington and their guests by William F. Gude, at his home, 3900 New Hampshire avenue northwest. Nearly 500 guests, including many in official life, attended the gathering.

In tribute to Mr. Smith, who for 45 years was in the service of the United States Botanic Garden, and who was characterized as "one who had done more than any other to make Washington a 'city beautiful'," it was proposed to erect a memorial in this city to his memory. It was suggested that the memorial be in the form of a conservatory, adaptable to the meetings of local and national florists' societies, and designed as a school for young men, where they could learn the science of horticulture.

Richard Vincent, Jr., of White Marsh, Md., former president of the Society of American Florists, paid a tribute to Mr. Smith, in recalling him as one of the greatest authorities on Robert Burns that ever lived.

At a business session preceding the party, it was decided by the executive board of the Florists' Club of Washington to hold a flower show November 2 to 8 at the Masonic Temple, to contain exhibits from all over the country. It will be known as the Washington chrysanthemum show, under the auspices of the Florists' Club of Washington.

#### WHERE BRAINS ARE NEEDED.

"I claim it takes more brains to farm," said Ebenezer Brown,

"Than what it does to git ahead and make a splash in town:

Why, I know six or seven chaps from this here neighborhood

Who went away to cities, where they're busy makin' good.

"You take Chicago and New York—size up the big men there—

The lawyer, doctor, merchant and the multimillionaire —

You'll find they've all been farmer boys, or lived in towns, at least,

Where they could have a chance to learn the ways of bird and beast.

"Now take these city chaps who come to cultivate the

I don't mean millionaires who farm for fun, you understand—

But take the common city folks who try to farm, and say!

It's pitiful the way they try to make their farmin' pay.

"I've saw a dozen of 'em fail; I never seen one yet Who managed to be prominent or not get into debt; And so I claim a man may make an awful splash in town

And not have brains enough to farm," said Ebenezer Brown.

—S. E. Kiser.

# The Sweet Pea of the Past and of the Future

In surveying the development of the sweet pea since it was first introduced into England, one must marvel at the extraordinary development of the flower and the position it occupies in the gardens of the world today. It has not only provided beauty and given immeasurable joy on account of its beauty, far in excess of any other flower, but it has provided material to the scientist, to the seed grower, to the seedsman and to the press calling for their respective abilities and putting them to the test in a great variety of ways. The question has arisen in many minds, "How long will it continue?" For the last five years I have heard it said that the sweet pea was at the height of its popularity, but the height of the great mountain of sweet pea possibility has not yet been A year or two ago we stood on some prominence where the high peak seemed only a day's climb further, but today our climb has brought us to another height, from which we can vet see the highest peak far above, though the fog has not lifted from its summit, and we can only imagine the highest point. As we look back and take in the view below, the scenery is grand. We have climbed over some rough parts, but our imagination urges us to climb vet higher, for as we climb this mountain our view will be finer and grander. We will have some rough places to conquer, oftentimes necessitating the use of guide ropes, but with the assurance that our fellow travelers are linked to us, these obstacles will be surmounted.

The first line along which we should consider the subject is naturally the raising of varieties.

The sweet pea, history records, was first noticed by Cupani, a monk in Sicily, in the year 1699, and a few seeds were sent to England. It was long before variations took place, and about the year 1793 we find that black, purple, scarlet and white varieties were offered for sale. Seven years later a black purple was offered, and thirty-seven years later a striped flowered could be had. In 1860 the first edged variety appeared. Ten years later Henry Eckford, whose name will always be associated with sweet peas as long as sweet peas are grown, began his great life work. Varieties now came much faster, but at first the stocks were badly mixed. While ignorant of the laws of Mendelism, Eckford by careful selection was afterward able to put his novelties on the market fixed. The varieties of the past and their coloring must have been considered wonderful, and to read over some of the descriptions given is now amusing, when we think of present-day flowers.

The coming of the Spencer in 1901, and how this flower captivated all growers and brought about present conditions in the sweet pea world is well known. We have to be thankful, however, that the original Spencer sweet pea was such a beauty, as had Spencer form first appeared in some of our varieties today, the name of which I leave to you, I fear it would have passed unnoticed.

Following Countess Spencer, novelties were showered on the market in profusion, but mostly in a wretched state of unfixedness. Seedsmen were too anxious to sell their production, but gradually things have settled down and today conditions are much improved.

Besides the coming of Spencers there were other variations of value. Of these the early flowering type was perhaps the most important owing to its place with florists. Then the cupid varieties and bush varieties were introduced by the American growers, but these never gained a wide popularity.

The present day finds us with a list of sweet pea names some two thousand in number. From the list we can pick out such gems as King Edward Spencer, Elfrida Pearson, Countess Spencer, George Herbert, Mrs. Cuthbertson, Melba, Bertrand, Deal, Illuminator, Margaret Atlee, Morse's Monday Morning, Margaret Madson 2d, Miriam Beaver 2d, Doris Usher, Helen Lewis, Hercules, King White, Rosabelle, Mrs. C. W. Breadmore, America Spencer, Jessie Cuthbertson Spencer, R. F. Felton, Asta Ohn, Dainty Spencer, Thomas Stevenson, Nubian, Vermilion Brilliant, etc. What wonderful coloring has been produced and what remarkable size. Fifteen years ago had we seen a plant of Prima Donna or Katherine Tracy bearing four blossoms on one stem, with even a suggestion of the size of sav Elfrida Pearson, even poorly grown, we should have looked for the immediate death of the plant. Truly the work of hybridizers has been wonderful, and whoever they may have been, lovers of flowers will pay tribute. The extensive list of Spencers in most diverse shades, bears ample testimony to their work. Some people, principally in America, should be reminded that "even Burbank in all his glory has not arraved one of these.

What has the future in store? To my mind it will bring forth things which have never been dreamed of. Already we have had a glimpse of what is coming by the new true double flowers. These are quite different from the duplex type. They are most wonderful flowers, and will rival the most expensive orchid, perhaps not only in beauty but in price, as the seeding qualities are very light.

Then in the early flowering section I look for good, fixed Spencer flowers in colors suitable for florists, and with the desirable qualities of the early flowering varieties of the past. There is yet much room for improvement in this section and an idea of what is to come can be had from the Australian variety Yarrawa Spencer.

In Cupids I look for an improvement in the form of Spencers having the Cupid growth and the long stems, large flowers, and colorings of the Spencer varieties.

Perhaps one of the most remarkable changes in sweet pea matters has been in the cultural methods. In years past the amateur dug his garden in the usual way, which was often poor enough, and then made a little drill with his hoe in which the peas were sown as thickly as possible. There were many ways resorted to in training them or supporting them.

Only a few keen growers ever thought of manuring or feeding the plants, and the result was a fine, thick hedge of medium height. A great contrast to that is the culture of the keen growers today. Growers have learned that thick planting was unnecessary, possibly they were helped to realize that by the price of seed. Then disbudding has been resorted to and the growing on the single stem system, thereby producing enormous flowers. It is nothing unusual to find growers spading the ground two and three feet deep incorporating manures with great care and knowledge. The plants are fed with manures during the flowering period and many colors shades from the sun's ray to preserve the color. The sweet pea plant is watched with anxious eyes from its

What our cultural methods will develop into is beyond me to say, but improvements will come. Following along present lines we might expect to see some of our growers trying to grow their peas on the Dahlia system, allow-

first appearance above ground until the final blossom is

ing only one blossom to a shoot. Personally, I hope they never get that far; rather would I welcome a system of culture which will get away from the single stem principle and tend towards the old-fashioned hedge, but producing flowers as large and as handsome as those produced on single stemmed plants.

Abstract from paper read by F. G. Cutllertson, of San Francisco, before the American Sweet Pea Society at New York,

#### PLANTING PEONIES.

The peony is easy to grow, hardy everywhere without protection, and free from diseases and insect enemies. The flowers, which include white, yellow and every shade from flesh pink to deepest maroon, are large and showy without being coarse. Once established, peonies are permanent-large clumps have been flourishing and blooming regularly in old gardens for a quarter of a century with no attention whatever.

The peony family is divided into two general sections —the Peony officinalis, or herbaceous, and the Peony Moutan, tree or shrub peony, both of which are hardy. The former is the one that has been grown in the gardens of Europe and America for centuries, and is the forerunner of the present-day hybrids; the latter is an importation from Japan, where it is also grown in pots.

The herbaceous are single, semi-double and double; the Japanese family has a semi-double cup, in the center of which is a mass of petaloids, generally of a contrasting

color or shade.

Culture of the peony is comparatively simple, but for success two things must be kept in mind: It will not thrive in the shade or in a wet, undrained location. In locating a border or hedge of peonies look to the future as to shade. Give them the open border where they will have full sunshine. As a low hedge they fill every requirement if sufficient width is to be had.

As the peony is a permanent planting it should have a permanent bed or border. Dig to a depth of not less than eighteen inches and fill the trench with good garden soil—soil from an old garden that has been kept in a high state of cultivation is the best—the peony will not tolerate fresh manure.

If the subsoil is naturally well drained, no artificial drainage will be needed, but if it is of tough or sticky clay, or hardpan, a layer of drainage material consisting of broken stone or coarse cinders should be put in the bottom of the trench.

Peonies may be planted either in late summer or spring. Do not advise late fall planting. If it is not convenient to plant in the spring as soon as the soil can be worked, postpone planting until the first week of August so the plants will make root growth before winter sets in. In taking up and dividing the peony, most of the small fibrous roots are lost, and the plant should have an opportunity to replace some of these before it is subjected to the rigors of winter.

The question as to when to divide clumps of peonies is one for each gardener to decide, as it depends upon soil, climate and cultivation. It is safe to say that in the garden under the most intensive culture they will not need it in less than four years—the average is six. After a year, when the flowers have shown a lack of brilliancy or size it is safe to divide the clumps if they have not been touched within five or six years; the flowers are usually the best indicators.

When dividing take up the whole plant and remove not less than three "eyes" to a division, avoiding loss of roots and bruising as far as possible. Mulch through the winter with leaves, straw, or well-rotted manure, and remove the mulch early in spring.

Frequently peonies do not throw typical blooms the first blooming season; the finest double ones may then give single or semi-double blossoms. It is not until the third blooming season that one can look for the most satisfactory results from the peony-no matter what the culture has been.—Country Life.

#### AURICULAS FROM SEED.

The enthusiastic grower of Auriculas will be anxious to raise some seedlings, and at this season, when these beautiful flowers are appearing, a short note on the subject may be useful, for a man is not worthy of the name of florist if he does nothing in the way of seedling-raising to improve the flowers he cultivates.

The selection of parents is very important, and only the best varieties should be crossed. It is also advisable to mate a green-edged variety with another belonging to the same group; selfs should be crossed with selfs, and so on; while among the alpines the yellow-centered forms should be crossed together, and this remark also applies to the white and cream centered kinds. Having selected an Auricula which it is intended to use as the mother plant, the anthers must be removed with a pair of sharppointed scissors before the pollen is distributed. When performing this operation, hold the plant in such a position that none of the pollen cases falls down the tube. After two or three days the stigma of the prepared flowers may be dusted over with pollen from another bloom, using a fine camel-hair brush to convey the pollen. The seed should be sown directly it is ripe, viz., about July and August, in seed-pans or ordinary flower pots. These are filled one-third of their depth with drainage, and the usual potting compost employed. Germination is sometimes rather slow, and after pricking off the first batch the seed-pans may still be retained, because other seedlings will eventually appear. When the young plants have made their first leaf after the two seed leaves, they can be pricked off at the rate of about a dozen in a 3-inch pot. As growth advances they should be placed three in a similar sized receptacle, and at the next potting one in a pot, while a 3½-inch or 4-inch will be large enough for their final move. It usually takes about eighteen months for a seedling to reach its full size. A suitable rooting medium consists of good fibrous loam two parts, leafmould one part, and decayed cow-manure one part, which ought to be well mixed three weeks or so before it is required.—Exchange.

#### PROGRESSIVE CURIOSITY.

A hen stood on the garden lot, Whence all but her had fled, And didn't leave a planted spot In the early onion bed. With vim she worked, both feet and legs, And the gardener says he bets, She was trying to find the kind of eggs On which the onion sets.

#### OUR COVER ILLUSTRATION.

The illustration on the front cover is a reproduction of a photograph by William H. Waite, which shows an avenue of stately elms on Broadway, Yonkers, lining either side of "Greystone," the estate over which Mr. Waite presides. The property fronts on both sides of the avenue.

#### AMERICAN SWEET PEA SOCIETY SHOW.

The sixth annual summer exhibition of the American Sweet Pea Society, which was held in the American Museum of Natural History, New York, on June 27 and 28, proved a pronounced success, both in the quality of the sweet peas shown and in the number of exhibitors. Some excellent displays were made by such firms as W. Atlee Burpee & Co., Arthur T. Boddington, and William Sim. The private growers were much in evidence and showed some excellent flowers. The feature of the private display was an exhibit by Wm. Gray, gardener to Mrs. W. B. Leeds, Newport, R. I.

Harry Turner was manager of the show. The list of awards of the private growers' classes follows:

The Peter Hendersen & Co's prizes for 12 vases, 20 sprays to a

vase, of 12 distinct varieties of Spencer sweet peas Mrs. W. B. Leeds, Newport, R. I. (Wm. Gray, Gr.), 1st; Giraud Foster, Lenox, Mass. (Edwin Jenkins, Supt.), 2nd; M. T. Cockeroft, Saugatuck, Conn. (Adam Paterson, Gr.), 3rd.

The Arthur T. Boddington prizes for a collection of sweet peas, 25 varieties, not less than 25 stems to a vase, to be shown with sweet pea foliage only-Mrs. W. B. Leeds, 1st; Adolph Lewisohn, Ardsley, N. Y. (Jno. Canning, Gr.), 2nd; Mrs. Benj. Stern, Roslyn, L. I. (W. D. Robertson, Gr.). 3rd.

The Stumpp & Walter Co.'s prizes for six vases of sweet peas, six distinct Spencer varieties, 20 sprays to the vase—J. J. Downey, Portchester, N. Y. (Thos. Ryan, Gr.), 1st; Giraud Foster, 2nd; Mrs. Robt. Winthrop, Lenox, Mass. (A. Carlquist, Gr.), 3rd.

The Henry A. Dreer prizes for the best vase of Florence Nightingale sweet peas—H. Darlington, Mamaroneck, N. Y. (P. W. Popp, Gr.), 1st; J. W. Pepper, Jenkintown, Pa. (W. Robertson, Gr.), 2nd.

Vase Queen Alexandra Spencer sweet peas-J. W. Pepper, 1st. Vase White Spencer sweet peas—Giraud Foster, 1st; J. W. Pep-

per, 2nd.

The Mount Desert Nurseries' prizes for the best vase of sweet peas, one variety, any color, 25 stems arranged for effect. Any other foliage than sweet pea may be used Mrs. W. B. Leeds, 1st; H. W. Fischer, New Canaan, Conn. (R. Bottomley, Gr.), 2nd.

The Watkins & Simpson prize for six vases Spencer sweet peas, six distinct colors, 25 sprays to a vase—Paul M. Warburg, Harts-

dale, N. Y. (Frank C. Luckenbacher, Gr.), 1st.
Twenty-five blooms sweet peas, Apple Blossom Spencer, with foliage. The Michell Silver Medal-Paul M. Warburg, 1st.

Vase sweet peas, Spencer varieties mixed with foliage, not less than 100 blooms. The Michell Silver Medal-M. T. Cockeroft, 1st. The Knight & Struck Co.'s prizes for best vase of sweet peas, containing 25 sprays, in variety, of which no two are alike in shading—Mrs. W. B. Leeds, 1st; J. J. Downey, 2nd; Giraud

Foster, 3rd.

The Burnett Brothers' prize for the best three vases of sweet peas; distinct colors, 50 sprays to a vase—Paul M. Warburg, 1st. The American Sweet Pea Society's prizes for the best display

for effect, covering a round table about four feet across-A. A. Mason, Tuxedo, N. Y. (David S. Miller, Gr.), 1st; Highlawn,

Lenox, Mass. (Geo. Foulsham, Gr.), 2nd.

Decoration for table of eight covers, glasses, cutlery and linen to be used-F. Berthused, Greystone, Yonkers, N. Y., 1st; H. L. Pratt, Glen Cove, L. I. (Hy. Gaut, Gr.), 2nd.

The W. Atlee Burpee cup for the finest 12 vases of sweet peas,

12 varieties—Paul M. Warburg, 1st.

The W. Atlee Burpee prizes for the best vase of one variety of Spencer type sweet peas introduced 1914-J. J. Downey, 1st; Giraud Foster, 2nd; Mrs. Moses Taylor, Mt. Kisco, N. Y. (Alex. Thomson, Gr.), 3rd.

The Sutton & Sons' prize for the best table of sweet peas, covering 12 square feet, and not to exceed three feet in height-

Highlawn, 1st.

The Weeber & Don prize for vase of 100 sprays mixed sweet peas, arranged for effect-W. E. Reis (M. Grunert, Gr.), 1st.

The Horticultural Society of New York Prizes:

Twenty-five sprays, any pure white—Mrs. Robt. Winthrop. 1st, with King White; Mrs. W. B. Leeds, 2nd; Giraud Foster, 3rd.

Twenty-five sprays, any crimson or scarlet—Mrs. Robt. Win-

throp, 1st, Vermilion Brilliant; Mrs. W. B. Leeds, 2nd; Mrs. Moses Taylor, 3rd.

Twenty-five sprays, any rose or carmine—Giraud Foster. 1st. with Geo. Herbert; Mrs. Moses Taylor, 2nd; Paul M. Warburg. 3rd.

Twenty-five sprays, any light pink-Mrs. W. B. Leeds, 1st, with Elfrida Pearson; Mrs. Robt. Winthrop, 2nd; Mrs. Moses Tay-

Twenty-five sprays, any deep pink—Mrs. W. B. Leeds, 1st, with Constance Oliver; Mrs. Robt. Winthrop, 2nd: Mrs. Moses Taylor, 3rd.

Twenty live sprays, any blue Mrs. W. B. Leeds, 1st, with Blue Jacket: Giraud Foster, 2nd; Mrs. Robert Winthrop, 3rd.

Twenty-five sprays, any cerise Daniel G. Reid, Irvington, N. Y. (Arthur Golding, supt.), 1st, with John Ingman; J. D. Barron, Rye, N. Y. (J. Linane, Gr.), 2nd.

Twenty-five sprays, any cream or cream yellow-Giraud Foster, 1st, with Princose Beauty; Mrs. Robt. Winthrop, 2nd; Mrs. Moses

Taylor, 3rd.

Twenty-five sprays, any salmon or orange Mrs. Robt. Winthrop, 1st; Mrs. W. B. Leeds, 2nd; Giraud Foster, 3rd.

Twenty-five sprays, any lavender or mauve. Mrs. W. B. Leeds, 1st; Mrs. Robt. Winthrop, 2nd; Giraud Foster, 3rd.

Twenty-five sprays, any violet or purple Giraud Foster, 1st, with Purple Prince; Mrs. Robt. Winthrop, 2nd; J. M. Cooke, Tarrytown, N. Y., 3rd.

Twenty-five sprays, any Picotee edged A. A. Mason, 1st, with Elsie Herbert; Mrs. A. Crane, Stamford, Conn., 2nd; Mrs. W. B.

Leeds, 3rd.

Twenty five sprays, any striped or flaked red or rose. Mrs. W. B. Leeds, 1st. with American Spencer; Giraud Foster, 2nd; Mrs. Robt. Winthrop, 3rd.

Twenty-five sprays, any striped or flaked blue or purple. Mrs. W. B. Leeds, 1st, with Loyalty; Mrs. Moses Taylor, 2nd; Giraud Foster, 3rd.

Twenty-five sprays, any bicolor other than Picotee-edged-Mrs. W. B. Leeds, 1st, with Mrs. Cuthbertson; Mrs. Robt. Winthrop, 2nd; Mrs. Moses Taylor, 3rd,

Twenty-five sprays, any other color distinct from the above-Giraud Foster, 1st, with Senator Spencer; Mrs. Robt. Winthrop, 2nd; Mrs. Moses Taylor, 3rd.

The F. R. Pierson Cup awarded to the exhibitor taking the most first prizes in section G—Mrs. W. B. Leeds.

The Garden Magazine achievement medal awarded to the finest vase of sweet peas in section G -Mrs. W. B. Leeds.

The following varieties were exhibited for the Boddington Challenge cup, 25 vases in 25 varieties; Alfrida Pierson, Lady Evelyn Eyrc, Charles Foster, Empress Eugenie, Martha Washington, Mrs. C. W. Breadmore, Prince George, Wm. Nubian, Queen of Norway, Dorothy Tennant, Wedgewood, Hercules. Thos. Cuthbertson, Blue Jacket, Clara Carter, Mayd Holmes, Helen Lewis, Loyalty, King White, Rosabelle, Etta Dyke, America, Thos. Stevenson, Orchid and John Ingman.



MRS. W. B. LEED'S (WM. GRAY, GARDENER, NEWPORT, R. I.) COLITO TION OF AS VASES IN 25 VARIETIES, WINNING THE BODDINGTON CHALLENGE CUP.

#### THE CONVENTION.

A fairly good attendance was present at the annual convention of the American Sweet Pea Society, which was held on Saturday afternoon of the annual flower show in the Museum building. F. R. Pierson, president of the Horticultural Society of New York, welcomed the visitors, which was responded to by Vice-president Arthur M. Kirby, of the Sweet Pea Society. President William Sim spoke briefly on the progress of the sweet pea and the growing interest in its national society. The secretary, Harry A. Bunyard, in his report said:

Right at this spot six years ago almost to a day, July 7, 1909, The American Sweet Pea Society was born. At that time I said, "The Sweet Pea Society should be a success, must be a success." I leave it to you that at least we are on our way, if we take the trouble to look over the exhibits now shown here in this building, perhaps the finest general exhibit of Sweet Peas ever shown in this country -if not in the world. Nearly sixty exhibitors and over 2000 vases of Sweet Peas besides table and other decorative features.

We have with us today nearly all our charter members with perhaps one great exception, the gentleman who helped us to organize our society when we needed all the moral support that could be brought to bear. I allude to the late Prof. John Craig, who was indeed a gentleman and a scholar and who organized our trial grounds at Cornell University and which today are under the efficient guidance of Prof. A. C. Beal.

The following bulletins have been issued up to date; No. 319, "Winter-flowering Sweet Peas"; No. 320, "Culture of the Sweet Pea," and No. 342, "Classification of Garden Varieties of the Sweet Pea"; all of which have been sent to the horticultural press and to our members in good standing; today they are

standard works.

In the past ten years, there have been great strides and advancement made in the Sweet Pea. From the Grandiflora type has evolved the Spencer type, the Winter-flowering Grandifloras and now the Winter-flowering Spencers. The American Sweet Pea Society has helped to advertise the Sweet Pea for us all and has helped to put it on the horticultural map.

I want to thank the horticultural press at this time however, for their unqualified support and for the gentlemen who are not only members, but who have given their time and financial sup-

port far beyond their obligations to the society.

We have today all told, about 200 members in good standing and 14 life members. Our financial condition is healthy; no big surplus, but money enough to take care of all obligations. Apart from the exhibition, we do not owe a penny and this is so far financed that we shall more than come out even; through guarantees, donations and prizes generously offered by the trade and

others. We have no paid officers.

During the past six years we have held nine exhibitions; six Summer and three Winter; two in New York, under the auspices of the Horticultural Society of New York; two in Boston, under the auspices of the Massachusetts Horticultural Society; one in Philadelphia, under the auspices of the Pennsylvania Horticultural Society, and the three Winter exhibitions in co-operation with the S. A. F. and O. H. National and other flower shows awarding during that time nearly \$10,000 in cash, cups, medals and other prizes in kind.

I am grateful for all our support, especially to the Horticultural Society of New York, the Massachusetts Horticultural Society and the Pennsylvania Horticultural Society, who have been more than generous and courteous in the past. The future, too is brighter today than ever for our youthful and useful society, and in conclusion I might add the prophetic simile of the Rev.

W. T. Hutchins.

"The Sweet Pea has a keel that was meant to seek all shores; it has wings that were meant to fly across all continents; it has a standard which is friendly to all nations; it has a fragrance like the universal Gospel; yea, a sweet prophecy of welcome everywhere that has been abundantly fulfilled."

HARRY A. BUNYARD.

F. G. Cuthbertson, of San Francisco, Cal., extended an invitation to the society to hold its 1915 convention in that city in connection with the Panama-Pacific Exposition. The invitation was referred to the executive committee.

In the election of officers which followed, Leslie L. Morse, of San Francisco, was elected president; A. M. Kirby, re-elected vice-president; Harry A. Bunyard, of New York, re-elected secretary; Arthur T. Boddington, of New York, re-elected treasurer; John H. Pepper, of New York, re-elected recording secretary. William Sim was elected to the vacancy on the executive committee.

Professor A. C. Beal made an interesting report on the society's trial grounds at Cornell University, which provoked considerable discussion of a favorable nature, in which Messrs. Boddington, Fuld and Kirby participated. It was decided that these tests should be continued. Mr. Cuthbertson followed with an interesting paper on "Sweet Peas—Past, Present and Future" (extracts of which will be found in another column of the Chronicle). The meeting then adjourned to attend a banquet of the judges at the Hotel Endicott.

It was authoritatively stated that the success of the Sweet Pea show in New York this summer assures

a similar show for New York City in 1915.

#### THE BANQUET.

The banquet was a very enjoyable affair. The menu

was excellent and the speeches were brief and to the point, A. T. Boddington acting as toastmaster.

The toasts and those who responded were as follows: The Horticultural Society of New York, T. R. Pierson; the Judges, Geo. Kerr; the American Sweet Pea Society and the Sweet Pea, Wm. Sim and Harry Bunyard; the Panama-Pacific International Exposition, Frank G. Cuthbertson; the New York Florists' Club, Jos. A. Manda; the Wholesale Grower, A. Herrington; the Retail Florist, G. E. M. Stumpp; the Gardener, W. Angus; the Amateur, J. W. Everett; the Seedsman, A. M. Kirby; the Press, J. Harrison Dick; the Ladies, J. H. Pepper.

Those present were: William Sim, F. R. Pierson, G. E. M. Stumpp, Jos. A. Manda, Robert Koehne, Samuel Burnett, Harry Turner, J. H. Dick, W. H. Waite, Frank G. Cuthbertson, John Canning, Percy E. Hicks, Wm. Gray, A. F. Faulkner, W. Angus, C. Knight, Geo. Kerr, J. Carman, J. S. Lynes, C. W. Ashmead, J. Austin Shaw, J. H. Pepper, Harry Bunyard, A. G. Calkin, J. W. Everett, Philip Freud, Fred Michell, Jr., A. Watkins,

A. M. Kirby and Superintendent Foulk.

#### PRELIMINARY SCHEDULE.

American Gladiolus Society Annual Exhibition, Boston, Mass., August 18, 19 and 20, 1914.

OPEN CLASS

Vaughan's Seed Store—\$10, best 25 spikes Gladiolus Mrs. Francis King; Vaughan Silver Medal, best 25 spikes Chicago White; \$5, best 25 blooms Vaughan's New Primulinus Sunbeam. E. E. Stewart—\$5, best 12 spikes of Black Beauty; \$5, best 12 spikes of Golden Queen; \$5, best 12 spikes of Lucille; \$5, best 12 spikes of Michigan.

W. E. Fryer -\$5, best 6 spikes Gladiolus Mrs. W. E. Fryer. T. A. Havemeyer—\$10, best 6 spikes white; \$10, best 6 spikes pink or shades of pink; \$10, best 6 spikes yellow; \$10, best 6 spikes blue or layender; \$10, best 6 spikes red or shades of red; \$10, best 6 spikes or any other color.

(In judging, the following points are to be taken into consideration; color, as clear as possible; size, large and well expanded

bloom: spike, strong with flowers evenly set.)

W. Atlee Burpee & Co. \$10, best collection 10 varieties 6 spikes each.

H. W. Koerner \$5, best 12 spikes American Wonder; \$5, best 12 spikes Twilight Chief; \$5, best 12 spikes American Giant.

Jacob Thomann & Sons—\$5, best 25 spikes of any white variety.

Montague Chamberlain—\$10, best white seedling 3 spikes; \$10, best yellow seedling 3 spikes; \$10, best pink seedling 3 spikes.

#### GARDENERS' CLASS.

John Lewis Childs—For collection 10 vases Gladiolus Childsi named varieties, \$10 first prize, \$5 second prize.

H. W. Koerner \$5, best 12 spikes American Wonder; \$5, best 12 spikes Twilight Chief; \$5, best 12 spikes American Giant.

Knight & Struck Co.—For Vase containing 3 spikes Gladiolus Mrs. Frank Pendleton, \$3 first prize, \$2 second prize; for vase containing 3 spikes Gladiolus Badenia, \$3 first prize, \$2 second prize.

"The Modern Gladiolus Grower"—Silver Cup valued at \$15. For largest and best display of mixed and named varieties, to contain at least 6 named varieties, correctly labeled. Three spikes each

Jacob Thomann & Sons—\$5, best 3 spikes of any white variety. L. Merton Gage—\$5, best vase of 10 varieties, one spike each. G. D. Black—60 bulbs Golden King. Best vase of yellow varieties.

American Gladiolus Society—Best exhibit of at least 15 varieties 3 spikes each, correctly labeled, Silver Medal first prize; Bronze Medal second prize.

#### OPPORTUNITY.

To each man's life there comes a time supreme: One day, one night, one morning or one noon. One freighted hour, one moment opportune. One rift through which sublime fulfilments gleam. Ah. happy he who, knowing how to wait. Knows also how to watch and work and wait. On life's broad deck alert, and at the prow To seize the passing moment, big with fate, From opportunity's extended hand. When the great clock of destiny strikes Now!—Selected.

# The White House Gardens, Washington, D. C.

The illustrations shown are reproductions of recent photographs of the White House Gardens, adjoining the Chief Executive's mansion, at Washington, D. C. The gardens located south of the White House, which were known as the colonial gardens of Mrs. Roosevelt, were originally designed and planted by the late Geo. H. Brown, landscape gardener of the office of public buildings and grounds. These gardens were entirely remodeled last Fall and are divided into two sections known as the east and west gardens. Miss Beatrice Jones, lanscape architect, prepared the plans for the remodeled east garden. It called for material which was not available, so after consultation with Mrs. Wilson it was decided to substitute some of the evergreens and hedges called for but not to interfere with the general outline of the plans.

The planting of the herbaceous borders and the four panel beds was personally supervised over by Mrs. Wilson, whose excellent taste for blending colors was fully demonstrated by the splendid results produced at the time the photographs here shown were taken. Some of the evergreens and shrubs used in the east garden are Juniperus Virginiana glauca, Rollinson's aborvitae, Osmanthus, illicifolius, Euorymus japonica, Kalmics, Althea and Roca setegera. The herbaceous plants used were Hollyhocks, Foxgloves, Phloxes, Anemones, Lupens Coreopsis, Seanthus, Wallflowers, Lilium Candedum, Iberes, Sweet Alyssum, Peonies, Myosotes English Daisies, Pansies, Japanese and German Iris.

The plan for the west garden was prepared by George Burnap, landscape architect of the office of Public Buildings and Grounds Department, and it will be seen that the design is entirely different from that of the east garden, it being Mrs. Wilson's desire to avoid similarity.

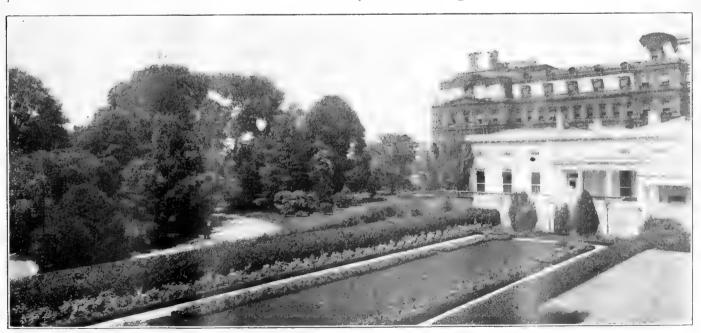
In the background of the photograph reproduced of the west garden of the State. War and Navy Departments can be seen and immediately in front of it is the president's office building. On the right hand side between the hedge and corridor is a walk leading directly to the president's office. The archways are of privet with a row on either side of standard roses. Looking west are two very fine Irish yews, between which is to be placed a statue with a background of ivy. The lattice work is planted with climbing roses which, when they reach the pergola, will be permitted to hang over. Some of the varieties of roses planted in this garden are Killarneys, Antoine Revoire, Duchess de Brabant and Lady Hillington. The effect produced when these roses were in full bloom was a beautiful one and brought forth a great deal of favorable comment from visitors to the garden. Mrs. Wilson also supervised the planting of this garden, and, as in the other garden, her refined taste is very much in evidence.

The construction work in the remodeling of these gardens was under the immediate direction of Colonel W. W. Harts, the engineer officer in charge of public buildings and grounds, who combines with his engineering

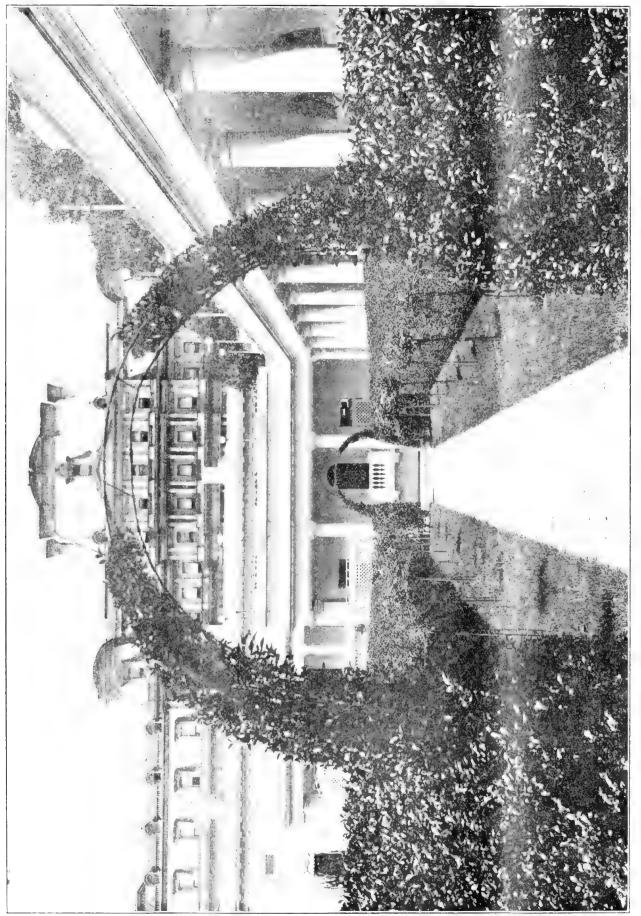
ability quite a taste for the beautiful.

Mrs. Wilson's interest is by no means confined to the outside gardens, for she is equally as fond of the greenhouses as she is of the outside plantings. During her spart moments she never misses an opportunity to pay them a visit. Her favorite flowers are the roses-Sunburst, Radiance, American Beauty, and the Killarneys. Enchantress is her favorite carnation, and these are grown in abundance in the White House greenhouses. Tropical flowering and foliage plants are also grown in these houses in large quantities to supply the interior decorations of the Executive Mansion.

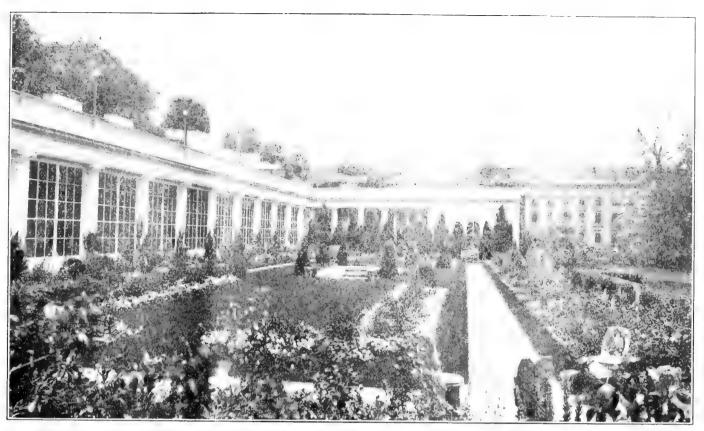
The gardens and greenhouses are in charge of Head Gardener Charles Henlock. Mr. Henlock has been emploved on the White House grounds for nearly a quarter of a century. For twenty years he was under the late George H. Brown, but for the last five years has had entire charge of the White House park, greenhouses and gardens. He came direct to Washington from England where he was previously employed under the late Archibald Barron, superintendent of the Royal Horticultural Society's gardens at Chiswick. Mr. Henlock's ability is well exemplified in the perfect upkeep of the White House grounds and the excellent stock which is produced in the greenhouses.



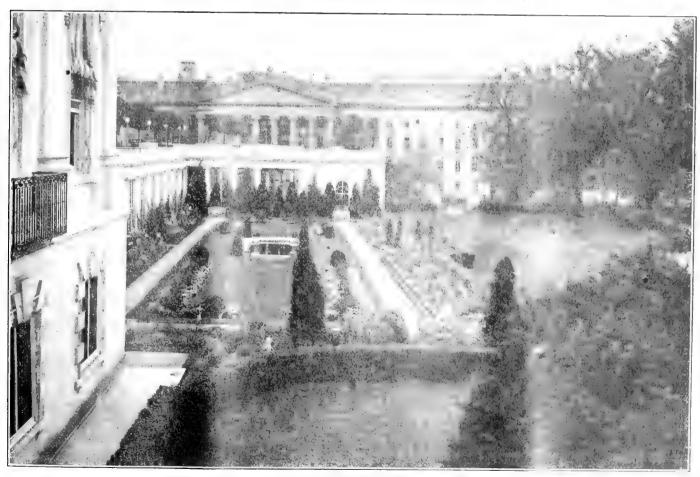
A VIEW OF THE WEST GARDEN, WHITE HOUSE GROUNDS, SHOWING THE PRESIDENT'S OF. . IN FOREGROUND, STATE. WAR AND NAVY DEPARTMENT BUILDING IN BACKGROUND



THE PRESIDENT'S WALK IN THE WEST GARDEN LEADING DIRECTLY TO HIS OFFICE, ENCLOSED WITH PRIVET, THE PATH IS LINED ON LITHER SIDE WITH ROSES.



THE EAST GARDLA, WHITE HOUSE GROUNDS, WASTINGTON, D. C. IN WHICH MRS. WILSON MAY HES (S. A. KLEN PERSON M. INTEREST. AND PERSON MEY S. FURVISTO AND PERSON PERSON



A DISTANT VIEW OF THE EAST GARLAN, WHILL HOUSE GROUNDS WASHINGTON TO A SHORT SHOULD BE ARROUS DEPARTMENTS IN BACKGROUND.

# GARDENERS' CHRONICLE

OF AMERICA.

MARTIN C. EBEL, Managing Editor.

Published by

#### CHRONICLE PRESS

M. E. MAYNARD, President.

A. A. FAY, Sec'y.

Office of Publication

1 Montgomery Street, Jersey City, N. J.

New York Office

236 WILLIAM STREET, NEW YORK CITY.



Subscription Price, 12 Months, \$1.00 :: :: Single Copies, 10 Cent Foreign, \$1.50

Entered as second class matter February 18, 1905, at the Post Office at Jersey City, N. J., under Act of Congress of March 3, 1879.

Published on the 15th of each month.

Advertising forms close on the 10th preceding publication.

For information regarding advertising rates, etc., address Advertising

Department, GARDENERS' CHRONICLE, Madison, N. J.

#### ADOPTED AS THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

President, WM. H. WAITE, Vice-President, M. H. WAITE, J. W. EVERETT, JAMI Yonkers, N. Y. Glen Cove, N. Y. Mam. Secretary, MARTIN C. EBEL, Madison, N. J.

JAMES STUART, Mamaroneck, N. Y.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; William Duckham, Madison, N. J.; Alexander MacKenzie, Highland Falls, N. Y.; John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1915—John Shore, Harrison, N. Y.; Thomas Proctor, Lenox, Mass.; William N. Craig, Brookline, Mass.; Frank E. Witney, Fishkill, N. Y.; Robert Williamson, Greenwich, Conn.; F. Kirk, Bar Harbor, Me.; James Bell, New York, N. Y.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

Vol. XVIII.

JULY, 1914.

No. 3.

Elsewhere in these columns we print several communications from young men of the gardening profession. They are of the kind that express the right spirit; the sort that will lead to success if the writers will follow the thoughts they are sending forth. "A Young Member" advises well when he says that the young men must not conceal within themselves what their capabilities are, but must seek opportunity where others can learn of them. We are reminded of a message received from a professor of one of the leading agricultural colleges, following his visit to the New York Flower Show, in which he expressed gratification over having had the pleasure "to meet such prominent horticulturists as Waite, Totty, Turner, Duckham and Herrington," of whom he had heard and read so much about. None of the men mentioned will claim to have accomplished more in his profession than many other men are accomplishing, but they possess the wisdom to "let their light so shine before men that they may see their good works." opportunity presented itself they were ever ready and willing to display their ability and did not hesitate to reveal to others the knowledge they possessed, which made them prominent in their profession and gained a reputation for them as leaders in horticulture. There are many gardeners who have had, and still have equal opportunity for prominence in their profession, but who persist in hiding within themselves.

The sentiment expressed by "Assistant Gardener" voices our own sentiments, which we have not hesitated to express from time to time in these columns. We have met many young men who would prefer the position of head gardener on a small place at poor pay, and where their chances to gain more than the limited knowledge they already possess of their profession is nil, to that of a well paid assistant's position on a complete private estate where every opportunity presents itself for better education. They seek their title early, but in time must join the ranks of the so-called gardeners, for when opportunity sought them they failed to grasp it.

We believe the experience of Frederick Liston is not a common one. Such places as he refers to do not really want real gardeners, but garden laborers. There is no way to regulate such conditions, as is suggested by him, for the man who buys service and material has the making of his terms; it is left to the seller to accept or reject

as he sees fit.

One of the well-known British firms of seed growers is capitalizing the fact, in a pamphlet which is being circularized world wide, that its share of the order for the U. S. Congressional free seed distribution this year amounted to no less than forty-four tons and that orders for the free seeds went to four other English, French and Dutch seed growers.

We can hardly conceive why this wasteful appropriation of many millions of dollars should be permitted to find its way abroad, and why, if Congress will insist on continuing this much abused free seed practice, a stipulation is not included in the appropriation that the money is to be expended for American grown seeds only. Though Congress may persist in being wasteful with public funds it should at least remain patriotic. Or is it that the American seed growers have refused to become a party to this graft of public funds—it is nothing more -to serve congressmen whose constituents will stoop to accept the favor of a few packets of seeds in return for their support at the polls. The farce of it all is that the farmer is being burdened with governmental bulletins instructing him how to part with his money, but when Congress has the opportunity to turn some his way it ships it abroad to be distributed among European farmers.

#### PRESAGE OF WOE.

My mood is most gloomy and sober, Though joyously fair is the sky; I pine for the frosts of October, And this is July.

Green-rimmed by its tapering rushes The little brook gurgles along; The willow copse peopled with thrushes Is vibrant with song.

With nature thus voicing its gladness, With all its sweet features aglow. Twere really the acme of madness To prophesy woe.

And yet I have cause to be glooming. Ay! very grave cause to be blue: Today I found rag-weed a-blooming-My hav-fever's due!

My mood is decidedly sober; The terrors of August are nigh; I pine for the frosts of October, -Selected. And this is July!

## NATIONAL ASSOCIATION NOTES

M. C. EBEL, Secretary, MADISON, N. J.

#### DOINGS OF THE COOPERATIVE COMMITTEE

The National Cooperative Committee which is to operate in conjunction with the cooperative committees appointed by the local societies, expects to have its plan completed by the early fall and be prepared to send out its first communication at that time setting forth what its contemplated plan of action is. It will indicate how the local committees can aid the cooperative movement.

#### THE SUMMER MEETING.

John Young, secretary of the S. A. F., in charge of arrangements of the meetings at the S. A. F. convention, has appointed Wednesday morning, August 19, as our meeting time in the convention hall. Full particulars of the meeting and its program will be published in the August issue of the Chronicle, which will be issued in advance of the convention. As reported in the June issue, several able speakers have expressed their willingness to appear at the meeting to address it on subjects interesting to the gardening profession.

#### THE NEW YORK TO BOSTON TRIP.

Members contemplating making the trip from New York to Boston via the outside route of steamers, which land direct in Boston, should lose no time in communicating with the secretary to reserve their accommodations. The fare from New York to Boston is four dollars. Outside stateroom two dollars. Inside stateroom one dollar. Staterooms contain two berths each.

The Copley Square Hotel will be the official head-quarters of the N. A. G., and accommodations may be reserved there by applying before the convention. The rates are as follows: Single room without bath, \$1.50 per day; larger outside room, \$2; court room, with private bath, \$2 a day; outside room, with private bath, \$3 a day. The above rates are for one person; \$1 additional per day will be charged for two persons occupying one room. Reservations may be made either through the secretary or by applying direct to the hotel, mentioning the N. A. G. in making reservations to obtain above favorable rates.

# THE ASSOCIATION'S BY-LAWS FOR DISTRIBUTION.

Notice is again given that the Constitution and By-Laws of the association have been printed in book form for distribution among any of its members who may desire to obtain a copy of the same. A request to the secretary's office for a copy will receive prompt attention, and a copy of the By-Laws will be forwarded to any member who may apply for one.

#### A TIMELY SUGGESTION.

I would like to make a suggestion to you, which your speech at Lake Geneva brought to me. You said that you specially wanted to get the young gardeners interested in the National Association of Gardeners. I was thinking that it would be something of an inducement if you were to have an annual essay competition, or something similar, for young gardeners who never have had a head gardener's place, and who are members of the association. If certificates were awarded, I am sure that

the lucky recipients would be very proud of them, and the ones who were less fortunate would try harder the next time. I would be pleased if you would bring this before the next meeting of the N. A. G. to see if they would approve of it. Hoping that you will give this your consideration.

Lake Genevalte.

Lake Geneva, Wis.

The foregoing communication will be referred to the National Cooperative Committee of the National Association of Gardeners, which is empowered to act on such matters. The writer may rest assured that his suggestion will receive favorable consideration.

#### AMONG THE GARDENERS

Samuel Batchelor, for the past twelve years gardener at Crosswicks Farms, Jenkintown, Pa., of which Thomas W. Logan is superintendent, has secured the position of manager of "Tahoma," the estate of Frank C. Littleton, Mamaroneck, N. Y.

Peter Duff, superintendent of "Brighthurst," Orange, N. J., sailed for Scotland on July 4. It is expected that Mr. Duff will be home again in time for the summer meeting of the N. A. G., of which he is a trustee.

It has just become noised about that Stanley Candler, superintendent of the W. B. Thompson estate, Yonkers, N. Y., took the marriage vow early in June—fuller particulars are lacking, but congratulations are in order.

\*

Walter Miller recently accepted the position of head gardener on the estate of Dr. Williams, Prospect street, Hartford, Conn. Mr. Miller was previously engaged on the commercial establishment of A. N. Pierson, Inc., Cromwell, Conn.

W. C. Rust, superintendent of the Weld Estate, Brookline, Mass., has the sympathy of his many gardening friends over the death of his father, Robert Rust, who was a well-known gardener in Scotland.

Arthur Herrington, of Madison, N. J., has been appointed manager of the August show to be held in Newport, R. I., under the auspices of the Newport Garden Club and Horticultural Society.

John Dodds, superintendent of Lindenhurst, the Wanamaker estate, Wyncote, Pa., sails on the S. S. Celtic, July 23, for a six weeks' vacation to England and Scotland, accompanied by his daughter, Miss Mary Dodds. Mr. Dodds expects to visit some of the large estates in England and Scotland on his trip.

#### SUMMER MEETING

National Association of Gardeners, Boston, Mass., August 19, 1914

#### A SPIRIT WORTHY OF ENCOURAGEMENT.

Much has been said and written comparing the standard of efficiency of present-day young gardeners with those of past generations. The young gardeners of to-day are too often the subject of unjust and biased criticism by members of the old school, but most assuredly the high standard to which gardening has now attained has been, and still is, being wrought by the alert, keenly interested and industrious young men of the profession equally as much, if not more, than by the old-timers. The whole basis of horticulture has developed until now we have gardening schemes that were never dreamt of twenty or thirty years ago. This being so, is it not true that in order to become thoroughly proficient a young gardener has nowadays a more complex problem to deal with than was hitherto the case?

Gardening of today demands of a man a keener intellect, untiring industry and uniform courtesy, as well as a knowledge of science, since he is expected to know the chemical constituents of the various fertilizers, insecticides and fungicides which he handles, to say noth-

ing of the engineering side of things.

How often nowadays are gardeners called upon to superintend electric light plants, pumping engines, and

so forth?

To my mind this adverse criticism to which we all are too frequently subject is due to the fact that we ourselves are reluctant in giving publicity to our own convictions. Surely those of us who have a sufficient love for our calling to become members of the National Association, and readers of the official organ, could, if only we tried, make the paper even more interesting for one another by an occasional contribution to its pages.

We could scarcely hope to enlighten the old-time warriors, farther than letting them see that we were right on the path of fitting ourselves to become their worthy successors by aiming at something higher than a mere struggle for an existence to be gained from the land we

cultivate.

The daily charm which our environment affords at different seasons of the year would cease were it possible to maintain a sameness of things the year round. To the enthusiast each change of season brings its own peculiar enchantment, and lovers of horticulture ought to be grateful that the year and the human heart have room

for changes.

To what end, then, would this aptitude for acquiring a literary talent lead us? Surely to a wider conception as to future requirements of the gardening art and a fresh interest in life, besides its being a stimulus to our daily work. Men who live entirely within their own little sphere in time become narrow of perception, and the humdrum of their daily toil proves burdensome, even though they themselves might be physically fit. Most of us can do our share of the actual work, but when arrangements for future months and, indeed, some times vears, come under consideration, we shall feel the benefit to be gleaned at this time from a careful and frequent exercise of our own minds, and the more scope we allow ourselves in this direction the better equipped shall we be to take the place of those who are wont to criticise our feeble yet earnest efforts.

"A Young Member."

Southampton, N. Y.

#### REASON OF CHEAP GARDENERS.

From Horticulture,

While Mr. Watson has been breaking a lance with the secretary of the N. A. G. respecting the merits and demerits of the aims and objects of that organization, some of the younger

school have been looking on and like the young rooster, would like to try a hand a-crowing now that the old ones are through, or apparently so. So we beg to be allowed to set forth our views as one who is working in the ranks of assistant gardeners and therefore able to bear the trend of feeling in that direction. The desire of most persons who enter gardening is to get to the top, and that as soon as possible. So should it be; but there is one very important factor which many seem to overlook. "Will I be competent to hold a job and can I give results that would reflect credit upon the profession to which I belong?" is a thought that occurs to a very small percentage. The fact that a man has worked as assistant for fifteen years, or that he is thirty years old next birthday, does not make him a competent gardener any more than because he can run a greenhouse satisfactorily he can also manage an estate. Another thing that is responsible for inefficiency among gardeners is that as soon as a young man enters the business he wants a job in the "houses" so as to be steady, and no attention whatever is paid to the outdoor branches of the work once he has started to pull weeds out of the benches and scrub the walks. Furthermore, there are some in our ranks who have had a limited experience in more than one branch of the art, and who do think they are fully equipped for the many duties that devolve upon the real gardener.

A short time ago we read in a well known trade paper an ad-

vertisement something like this:

"WANTED—Situation as Head Gardener or Superintendent on gentleman's country estate. Life experience in all branches of horticulture. First-class references. Age 23."

Comment is needless, but this serves to show that some who enter the profession think it can be learned in a very short time. Fifteen years seems a long time to put in before one becomes a competent gardener, but many of our best men put in all that and some more before they get out on their own book, and they undoubtedly did a good deal of private study on subjects which are side issues so far as gardening itself is concerned, but which, nevertheless, are indispensable in the management of a country estate. The moral of all this is that there are too many "neglected opportunities" amongst the raw material from which the estate manager is recruited or should be recruited. After many of us have neglected our opportunities we become restless and dissatisfied and determine to start out for ourselves. A place turns up, and there are others like us who feel the same way, but there is the determination to have the job at even \$50, so on goes the price-cutting until the poor fellow has succeeded in persuading himself that he has at last made his mark and the emplover deluded into believing that he has engaged the services of

a competent man at low water rates.

The fact that such methods are resorted to needs only the evidence of the men who hold such low priced jobs and who, as Mr. Smith says, are only too well paid. These same men when they were assistants would have refused a place which would have afforded them a wide and useful field of experience if the wages were not at least \$5 per month more than they had in the previous place. So again we have to admit that as assistants we prefer wages to knowledge and experience. In Europe it is quite the custom to sacrifice wages to get to a place that has a reputation; in fact, to the British journeyman gardener, wages are a secondary consideration. Hence the success of the British

gardener.

In conclusion we want to say to Mr. Watson that we believe that the cause of low wages is incompetent gardeners, who have only themselves to blame for their incompetence. We believe, however, that there is some good old stuff among the boys yet, and, like many of our bosses, we only want a little encouragement and credit where it is due, to help us along, and we are prepared to listen, too—at least some of us.

AN ASSISTANT.

The above communications convey the right tone in them. They should be carefully read by the young men of the profession and the suggestions contained in them carefully pondered over. We know "A Young Member" and would like "An Assistant" to make himself known to us. We enjoy cultivating the acquaintance of young gardeners of the type which these writers express.— Editor.

#### A GARDENER'S GRIEVANCES.

DECEMBER 19, 1913.

Mr. M. C. Ebel, Sec. N. A. G.

Dear Sir: In your report at the annual convention at New York City, you invite suggestions from members for the benefit of the gardening profession. I should like to know, as one of the many in the profession who are desirous of the same information, and who would register in the ranks of the N. A. G.: "What

are the objects and benefits of the National Association of Gar-Every trade and professional society issues a copy of its constitutional by-laws to its members; this is the only so-

ciety that I know of that does not supply this want.

I find there are a large number of employees who are either ignorant, selfish or apathetic to the conditions and requirements of a gardener. Some of these I have had to contend with, others are from personal observation, and I have noticed that it is mostly the strangers who arrive in this country who are dumped mostly the strangers who arrive in this country who are dumped into these so-called positions. An employer expects a conscientious service from the gardener and in return he gives an unsanitary damp old shack; some are infested with vermin, some are situated in the environment of a large number of dogs, with the incessant howling at night and day, or accommodation in a pump house where the vibrating noise also creates another kind of music. Others defer paying their wages for two or three months. Some require all kinds of plants and vegetables grown in one small greenhouse, another will tell you that you have a few men under you, but the employer invariably instructs them what to do, and the employer being ignorant in the practical routine and methods of working, induces antagonism between the employer and the gardener. These are only a few causes and conditions provaled in this tions prevalent in this country, where a large number of employers merely "monkey" with competent men.

If, then, an association is formed for gardeners, it will have to be a protective society and assist in promoting their interest, dignity and the co-operation of its members, as well as educating

the employers what a gardener should do and receive.

Yours truly.

FREDERICK LISTON.

DECEMBER 29, 1913.

Mr. Martin C. Ebel, Secretary, N. A. G.

I respectfully thank you for your reply to my letter of the 19th inst. and I should fully appreciate it if you publish it in the CHRONICLE, as it may be the means of producing a ventilation on the conditions prevalent in this country amongst the profession of gardeners.

I am glad to hear the association's object is to elevate the profession of gardening, but until I receive a copy of the rules and constitutional by-laws of the N. A. G., I shall have to reserve my opinion as to the merits or demerits likely to be accomplished

through the efforts of the organization.
In reference to your question, viz.: "Whether conditions are really much worse here than they are in the European countries? If so, why do so many young men of the gardening profession

leave their home country to seek opportunities here?

In the first place, I can only speak on conditions prevalent in Great Britain. Now, sir, having tested both, I have no hesitation in saying that the working arrangements and conditions in that country are better than those prevailing here, although I admit this has only been brought about during recent years, thanks to the energetic efforts of the gardeners' association there, which not only protects and promotes the interest of the profession, but also extends a cordial co-operation with employers, and by a mutual understanding persuades them to give reasonable working conditions and compensation for competent service. In the second place, "the reason so many do not return to their home country" is owing to the congested state of the employment market, the number of acres of land which has ceased to be cultivated; consequently the law of supply and demand has affected the gardener as much as any one, together with political and plutocratic oppression and ostracism, are the chief, amongst other causes, why young men do not return. If England received the same amount of sun as this country, it would be an ideal Garden of Eden. In this country of England over 1,000,000 acres of land have gone out of cultivation during the last 35 years This has caused a large influx of cheap farm hands to invade the ranks of gardeners. I am aware that wages here are more than double those of the home country, but the privileges are nil when you compare the two, and very often a wife's services have to be included in the wages here as a caretaker, cook, butter maker, look after chickens and dogs, for the salary of \$50, accommodation and 2 quarts of "skim" milk.

I am aware that the employer who "pays the piper can demand the tune"; just so, and the piper who plays the tune can demand his payment. A conscientious and considerate employer would not hesitate to meet that demand. An employer is expected to give proper and respectful orders before he can expect to receive proper service, combined with the same courtesy and conscientious workmanship; an employer who is an overbearing boss and desires to show his rule because of his "greenbacks" is invariably not worth the consideration of a gardener. I am aware no association can dictate to employers on behalf of gardeners, but it can and should use, through its members, persuasive measures to ameliorate and adjust their grievances by an amicable concert.

You say. "A man that can afford the luxury of a gardener, etc." I take issue with you that a gardener is a luxury—a gardener is as much a necessary as a doctor, lawyer, teacher or

a farmer, for he belongs to the productive class of workers and therefore is a producer. Why don't you form branch associations in every State so that gardeners would have a meeting place to discuss these vital questions and also be able to receive a delegate from headquarters occasionally? I think this would be a good way of co-operation and more economical for the members, as they could reach the meeting in half a day, say, every two weeks.

Another point I would like to urge, viz., free advertising in the Chronicle for a position when out of employment, and if addressed at the office the members to pay postage only. would also be interesting to the members to have recorded in the CHRONICLE the details of the Executive meetings.

In conclusion I shall appreciate the publication of both my letters in the Chronicle if you have space at your disposal.

FREDERICK LISTON.

The above correspondence is published at this late date at the wish of the author, who feels that the chronicling of his views on gardening conditions in this country may aid to eliminate some of the unpleasant surroundings he has encountered. From my own observations I am afraid that his experience is an exceptional one and not the rule. There is only one solution to the problem what one should do when he encounters such an experience, and, that is, to seek a better opportunity and seize it when it presents itself. There is no law that binds one to an unsatisfactory employer or position. I am not personally familiar with conditions that govern gardeners abroad, but from what I have gathered among many gardeners, the relative conditions here and abroad being a subject of discussion which comes up frequently among them, it appears to me that the gardener in this country has much the best of it, both respecting the salary paid to him and his surroundings. M. C. EBEL, Sec'y N. A. G.

#### WHAT CAN YOU DO?

This old world hasn't time to stop That it may learn your name;

It doesn't care a rap about

Your blue blood or your fame; The only thing this old world cares About concerning you

Is simply this one thing, to wit: "Well, Sir, what can you do?"

So don't waste time in hunting up A useless pedigree;

And don't bewail the fact that you Are not an LL.D.

But when the old world stops to ask: "Well, Sir, what can you do?"

Just roll your sleeves up elbow high And say, "Well, I'll show you!"

—Columbus (Ohio) State Journal.

"While you're standing looking over the fence to see how your neighbor's morals are stunted in growth, you had better be getting a hoe and chopping some of the weeds out of your own.'

#### APPLICATION FOR MEMBERSHIP

# National Association of Gardeners

I hereby apply for Membership in your Association: -

Name in full

Occupation

Address \_\_\_

Date

Reference \_

Forward Application to M. C. EBEL, Secretary, Madison. N. J., with dues, which are \$2.00 annually, including subscription to the official organ of the Association.

#### GROWING STRAWBERRIES IN HILLS.

By F. M. SHERMAN.

When I say that strawberies will be at their best only when grown in hills, I know there will be many who will disagree with me. But I have found the hill system the most satisfactory, not only here in my present location in Oregon, but in several of the mid-western states as well. The only variety with which I have not found the hill system to be entirely satisfactory is the Excelsior, although there may be many more, which must be determined by experimenting with each variety separately.

I find the first thing is to determine the variety best adapted to the soil and climatic conditions. This will ofttimes be found to be a different variety from one which may be grown very successfully only a few miles away. Having done this, I put the plot into the very finest condition physically; if the piece is already in so-called garden condition, it saves much time, because this is the shape it should be in before the plants are set.

As to fertilizer, I have not found it necessary to apply anything of this kind, but have tried several experiments, both with the commercial and barnyard varieties. On my soil the results have been rather indifferent, as it seems to be well adapted to the growth of the strawberry. It is a sand to sandy loam and quite acid.

It may be well here to add a word of caution to the grower who lives in the alkaline soil districts, that if the soil conditions are such as many I have known, it is not at all practical to attempt to grow strawberries.

There is not the slightest danger of getting the soil in too fine a condition. In planting strawberries it is much better and easier to take plenty of time to get the soil in good condition and free from all weeds.

In setting the plants, where a field is large, I have found a plant setter to have many advantages, but the average grower will be able to set all he will have by hand, which, though slower, is as effective.

In setting, trim both tops and roots, leaving not more than three leaves, and cut the roots not longer than three and one-half inches. Do not hesitate to prune the roots back, as, by doing this, you are more certain to get results than if you had left the entire root on each plant.

In setting, care must be taken to reef the crown slightly above the top of the ground so it will not be covered later when cultivating, and still they must not project much above the level of the surface of the soil. Cultivation should begin at once, and be continued at least once every two weeks until the weather puts a stop to all growth in the autumn.

During the first season all runners and blossoms must be kept off the plants. This may necessitate cutting from five to eight times during the season, but this is earily done with a common pair of old or discarded scissors, which saves much stooping and is the best and most rapid tool which we have ever used, though some growers insist that a knife is better.

In the case of the strawberry when we cut off those blossoms, stalks and runners, each time we force the plant to start new crowns, until by the end of the season, we have more crowns formed than had we let them go to runners. Each of the buds formed is stronger, and has more vitality than little weak plants can show. Besides, we have the advantage of room for cultivation to conserve the soil moisture.

As soon as the soil is in condition the second season, the cultivation is begun and continued until the fruit sets. After this time the cultivation will cause too much trouble from dirty fruit.

As soon as a crop is harvested, cut the tops with a sharp hoe, then rake them up and burn. Cut tops at once or get a short crop later. This is one of the secrets of success with the hill system.

After years of practical experience, the growers of this district have demonstrated that the best yields of strawberries are obtained when the plants are set at three and one-half to four feet by eighteen inches between hills. This gives best yields, color and quality, and the plants are much easier to handle when picking and cultivating.

When picking strawberries for exhibition, we are careful never to touch a berry with our fingers, and select only the very smoothest and finest colored fruits, which are of a medium, uniform size, and more particularly a single shade of color.—From Fruit Grower.

#### CHINESE GRAFTED CHRYSANTHEMUMS.

Bulletin 92 of the Office of Foreign Seed and Plant Introduction reports on a species of Artemisia (wormwood) from Peking, China, which is thus described:

A biennial wormwood, occurring as a weed on all sorts of dry, waste places. The Chinese utilize this plant as a stock to graft Chrysanthemums upon, and claim that "mums" thus grafted are earlier, need less water and no manure, are more easily lifted and transplanted, and in general require far less care than when on their own roots. To obtain the best results the Chinese sow the seed in late summer in well-drained beds. germinate quickly, but the little plants make but very small growth during the autumn and winter. spring is there, however, they develop with great vigor. and in June they have well-formed stems. Now the Chinese cut off the main stem an inch or so from the ground and graft a Chrysanthemum scion upon it by the ordinary cleft-graft method; no wax is used, but only a small strip of fiber, while the plants are shaded during the first days. The stock and the scion soon unite and continue to grow vigorously. On very strongly developed specimens of stock the main branches are often used to insert on every one a different variety of Chrysanthemum or to train a beautiful "standard" tree of it, and some of such specimens are fully as good as the plants seen at home exhibitions of "mums." The above described method of grafting Chrysanthemums might prove to be valuable for the sections of the United States where the summers are somewhat too short or the nights too cool to rear the plants successfully out of doors, as, for instance, in the more elevated parts of the Rocky Mountain states. Care has to be taken in watering the plants sparingly when lifted and planted in flower pots.

#### JULY.

Journeying Time, if in thy power,
Tell who stays the earth in motion,
Formed life and light, tree and flower,
Timed the ebb and flow of ocean?

Unlock for us Mystery's dark tower.

Was germ or spirit life's origin?

Lead Science in her struggling hour

To solve the mystery of Creation.

Thy great forebears no doubt could tell— They saw this planet spick and span; They witnessed, too, the sea's first swell, And knew of Nature's secret plan.

Ah! Time, you've kept the secret well: Yield now the long-hid truth to man.

-David S. Miller.

#### TRAINING WALL FRUIT TREES.

Cordon fruit trees become increasingly popular each year, and the reason is not far to seek, for such trees are easily managed, while space is economised to the greatest extent. The early training of the trees is usually carried out in the nursery, and when the cordons leave the nursery they should not only possess main stems as straight as gun-rods, but also be furnished almost to the ground-level with fruiting spurs. If good trees are procured from the nursery in the first place, it then requires only common-sense methods to retain those trees well trained in one's own garden. Speaking generally, cordons should be planted obliquely. The reason for planting them on the slope is that a greater extension can be given to the leaders, which should not be carried above the top of the wall. Vertical cordons should only be placed against high walls or pillars, and even then over-vigorous varieties should not be planted. A point worth noting in planting cordons is that the more pronounced the incline, the further apart should the trees be placed. Double cordons or U-shaped trees are sometimes preferred, and occasionally one sees a wall planted with triple cordons; but for all practical purposes the single cordon gives the best result. Horizontal cordons, with low branches about one foot from the soil and trained parallel to the ground, are favoured for forming edgings to borders. Growth, however, is so restricted that trees trained in this manner rarely live for very many years. Slow-growing Apples and Paradise stock are best suited for horizontal cordons. The horizontal trained tree, with branches arranged tier upon tier, is one of the best form of trained trees for planting against walls. Should the branches on one side of the tree grow at the expense of those on the opposite side, the vigorous branches should be tied down temporarily. This will weaken them, while the weak branches may be strengthened by being raised. Much may also be said in favor of the fan-trained tree, particularly with such fruits as Cherries, Peaches, Nectarines and Apricots. The Pear, however, is one of the easiest trees to train, and will do equally well as a cordon, either single or double or horizontally trained. other type of wall tree worthy of note is the trained standard fan. Obviously it is only suited to very high walls or buildings. On the Continent it is regarded as a lucrative way of covering the upper part of one's

In pruning trained trees, Apple, Pear and Plum, the object should be to make every branch a cordon, with fruit spurs along the entire length of the branch, "Once a fruit spur always a fruit spur" is an old saying among fruit-growers. In order to secure fruiting spurs it is necessary to prune hard the second season after planting, and the following season the resultant vigorous growth should be shortened to about one-third its length. Summer pruning is important. It is accomplished by pruning or pinching back lateral growths to the extent of about 4 inches in July. This should be annually followed by winter pruning, when the side growths are cut back to two or three eyes. The fruiting spurs should, of course, never be pruned. With horizontal trained trees the leader should be cut back to within a foot of the top horizontal tier, and with cordons it may be shortened in proportion.

Unlike the Apple and Pear, Peach and Nectarine trees fruit upon the young wood, and not on fruiting spurs. The main shoots should be shortened about one foot in winter, and overcrowded growths thinned to the base. The young or fruiting wood should be re-

tained and laid in on the upper side of the leaders only. This will ensure uniformity in fan-shaped trees and avoid the crossing of branches.

The work of planting is best carried out in the autumn, but it may be successfully accomplished at any time when growth is dormant, providing, of course, that the weather is open and that the soil may be readily worked. It is a common mistake to over-manure the soil at the time of planting. Providing that the soil has been previously worked, very little, if any, manure need be applied, and even then only well-rotted manure should be incorporated with the soil. In cases where the soil is deficient in lime, the addition of a little lime rubble around the roots of each tree will prove highly beneficial; in fact, the value of lime rubble for fruit trees generally cannot be overrated. When planting trained trees against walls, the base of the trees should be brought about 10 inches forward away from the wall.—The Garden.

#### EDELWEISS IN AMERICAN GARDENS.

By John W. Coates, Jr.

The interest in edelweiss has been greatly accentuated because of the rarity of the little flowers. They are indigenous to the Alpine regions and, according to the prevalent belief, grow only in almost inaccessible places. So general is this opinion that even an accomplished Alpine mountaineer in writing of the edelweiss says, "Strangely enough, it always grows in a spot to be reached only with the utmost peril. You will see a tuft of its beautifully white flowers overhanging a precipice, or waving on a perpendicular wall of rock, to be approached but by a leap, where perhaps a chamois could hardly stand."

This statement covers the general belief as to the nature of edelweiss. The natives of the Tyrol and Bavaria have reaped a rich harvest through the sale of the flowers to tourists, who buy them as souvenirs of the Alps, apparently believing that each of the little flowers has been gained only at the risk of human lives and limbs. Thus the native profits by a theory that is decidedly erroneous.

Edelweiss, it is true, does frequently grow in places dangerous of access, but it is also true that many clumps of the dainty, woolly flowers are found growing thickly on broad pasture slopes in parts of the Tyrol and Bavaria. There never has been an abundance of them, but it is a poor day when one does not discover two or three of these clumps of edelweiss in a day's climb.

In America, until recent years, comparatively few people have known the edelweiss by sight, their only acquaintance being with the dried, pressed specimens imported as souvenirs. The fresh edelweiss has been an unknown flower to the stay-at-home American. Within the last few years, however, it has been grown in this country by many people. One of those who have been particularly successful with it is Mr. Louis Ettlinger, whose home is the old Henry Ward Beecher place at Peekskill, New York.

While touring in Switzerland, several years ago, Mr. Ettlinger secured a packet of the genuine Swiss edelweiss seeds, and on his return to America planted them in his hothouse. The following spring, in early May, the plants were set out in a shady, cool part of the flower garden, and their growth watched carefully. That season, however, the plants struggled along without blooming at all successfully, and it was decided to try again the following year.

In the first planting, Mr. Ettlinger had tried to keep the plants in as cool a place as possible, believing that they would grow better under conditions nearly like that of their native country; but in the second season they were set out in an open, sunny part of the garden, planted at distances of one or two feet, and cared for just as the other parts of the garden were cared for.

The flower of cold weather and of mountains thrived and bloomed abundantly all through the hot summer under a blazing sun.

Since that time the edelweiss have appeared each spring in the early part of May, and toward the end of the month have put forth flowers which remained in bloom until along in September. There has been no further bother with hothouse culture and cultivation; the plants have become naturalized and in their hardy way have inured themselves to the hardships of the new soil. They fill an interesting place in a garden full of interesting flowers.

"It is a low plant, four to twelve inches high, densely covered with a whitish wool, the attractive portion being the flat, star-like cluster of woolly floral leaves surrounding the true flowers, which are small, inconspicuous and yellow," says "Bailey's Cyclopedia of Horticulture" in describing the edelweiss. Various directions are given by authorities for the culture of the Alpine flower. One says, "It can be grown to perfection in elevated position of the rockery, in rather light soil and with full exposure to the sun. It also succeeds in an ordinary hardy border where the plants can be kept moderately dry in winter." Another advises that the seed be sown early in spring in shallow pans of sandy soil and leafmold and kept cool and moist. An English writer advises that a few stray seedlings be firmly planted in a narrow chink of rock, so placed that a deep fissure of gritty or sandy loam may be assured for the roots to ramble in. Plants in pots may be grown and flowered when the collar is tightly wedged between some pieces of stone or old mortar. The plant is best propagated by seeds, as division is not always successful.

The more poetic name of edelweiss means "noble white," and expresses the sentiment of the Alpine natives toward the flower as an emblem of purity.

The odd little plant has long had a place in English gardens; its cultivation is not difficult on sandy soils, or even as a border plant, and it grows, too, luxuriantly in moist, rich soils."

Gardeners who wish to grow something that is more or less of a novelty will find edelweiss an interesting plant with which to experiment. Most of our American seedsmen catalogue it.—From Suburban Life.

# RAILWAY GARDENING ASSOCIATION CONVENTION.

The eighth annual convention of the Railway Gardening Association will be held in New York City, August 11 to 14, at the Hotel Breslin, Broadway and Twentyninth street.

#### PROGRAM.

#### TUESDAY, AUGUST 11.

10:00 a. m. to 12:30 p. m.—Opening meeting. 2:30 p. m. to 5:00 p. m.—Business meeting. If necessary, part of the evening will be devoted to business meeting.

#### WEDNESDAY, AUGUST 12.

9:00 a. m. to 12:00 m.—Business meeting. 2:00 p. m. to 5:00 p. m.—Business meeting. Evening.—Go as you please.

#### THUESDAY, AUGUST 13.

9:00 a. m.—Eusiness meeting, election of officers, etc.

1:00 p. m.—Trip on Central Railroad of New Jersey to Somerville and Dukes Farms and Gardens, stopping en route to have photo of party taken by Mr. Morris at Fanwood Station.

#### FRIDAY, AUGUST 14.

9:00 a. m.—Trip to Ocean Grove via Sandy Hook boats and train, compliments of Central Railroad of New Jersey.

Afternoon.—To Coney Island or suit individual tastes.

Members are requested to kindly advise President F.
W. Vail, of Dunellin, N. J., at the earliest possible moment whether they are going to attend, so that he can complete the program for all business and social features.

#### THE OLDEST CHEMICAL FERTILIZER.

BY KARL LANGENBECK.

The beneficial results of applying a variety of chemicals to the soil is an old experience in agriculture. Gypsum or crude plaster, marl, a form of carbonate of lime, with more or less of clay admixture, chalk, crushed limestone and the road dust of roads running through a lime country were used indiscriminately just as they were available. In districts distant from such materials, the plastering, stucco and mortar of old buildings that were pulled down was not wasted. They were applied to the gardens and farms near the villages and towns of England in the days of bluff Prince Hal.

We are speaking, of course, of old countries, where the keeping up of the fertility of the land has been a constant problem. And, this is a problem we still have to learn in America, where virgin fertility is still so recent a tradition, if not an experienced fact with many, that farmers are slow to keep alive to its necessity.

Now, rural England, the home of our mother tongue, called all these various forms of chemicals by the general term "lime." "Liming the soil" meant applying any one or other of them, whichever was cheapest or easiest available. But it was also known, that if results were wanted in shorter time, burned lime such as used for mortar was best. It was, therefore, designated "quick lime" for "quick" meant alive in old English and "lime" an earthy chemical.

"Quicklime" is the good old English name for burned lime. It got it from the farmer from the way it did its work-quick. As there were always more farmers than masons, their designation had the call, and in the English of England, "burned lime" would not be understood for what it is by the generality of men, for "quicklime" is the word. Now, it would be well for our farmers to remember this, for it tells the story of age long experience in a word. But, how is it that here in America we have lost the designation and do not, as in the mother tongue, understand by lime, a class of substance and the particular thing by "quicklime." Why, very naturally. Favored in agriculture by fertile soil, the American farmer forgot about fertilizing it with different chemicals. "Quicklime" became virtually a material of the mason alone. The designation "quick" was therefore dropped because it was considered senseless.

So, in American English, we know of lime as a particular thing. We have lost the farmers' term "quick-lime" for the most active of lime derived chemicals. We hope American farmers will revive the expressive old English term

#### MASSACHUSETTS HORTICULTURAL SOCI-ETY EXHIBITIONS.

RHODODENDRON SHOW, JUNE 13-14,

What has been termed the Rhododendron Show for many years was held on June 13-14. The date proved too late for these flowers, however, and few were shown. Long tables of cut rhododendrons are at best far from interesting. What should be encouraged is the exhibition of large specimens in tubs for which substantial prizes must be offered. Other flowers made a splendid show. Peonies were extensively shown by R. & J. Farquhar & Co., Wellesley Nurseries, T. C. Thurlow Sons Co., James McKissock, William Thatcher, gardener to Mrs. J. L. Gardener; Martin Sullivan, gardener to Wm. Whitman; Dr. C. S. Minot, Geo. W. Page, gardener to Mrs. Frederick Ayer, and T. D. Hatfield, gardener to Walter Hunnewell. Large displays of German Irises came from T. C. Thurlow Sons Co., E. M. Dumple, J. K. Alexander and others.

William Thatcher captured both first and second for the best display of orchid plants. H. Stewart, gardener to Miss Cornelia Warren, showed a table of grandly flowered plants of the old Oncidium flexuosum, carrying 50 to 75 spikes each. R. & J. Farquhar & Co. received a silver medal for a beautiful group of herbaceous flowers. Mount Desert Nurseries had an imposing bank of perennials. Alexander McKay, gardener to E. A. Clark, had a fine specimen of Dendrobium thrysiflorum. were also numerous other exhibits of seasonable flowers.

#### PEONY SHOW, JUNE 20-21.

The leading peony exhibitors at the show on June 20-21 were T. C. Thurlow Sons Co., James McKissock, J. L. Smith, gardener to A. W. Preston; H. F. Chase, Martin Sullivan, Wellesley Nurseries, Dr. C. S. Minot, J. K. Alexander and R. & J. Farquhar & Co. The Mount Desert Nurseries received a medal for a fine display of herbaceous flowers. Large displays came also from R. & J. Farquhar & Co., Old Town Nurseries, Eastern Nurseries and others. Wheeler & Co. received a certificate for fine specimens of Dendrobium formosum. Jackson Dawson, of the Arnold Arboretum had an interesting collection of seedling roses on exhibition.

#### ROSE AND STRAWBERRY SHOW, JUNE 27-28.

The Rose and Strawberry show came a little late, but was an excellent show, more than filling the main exhibition hall. Hybrid teas were shown in better numbers than ever before. They attracted considerably more attention than hybrid perpetuals, although the latter still have hosts of admirers owing to their greater vigor and hardiness

M. H. Walsh, Woods Hole, was the largest and one of the most successful rose exhibitors. Others who made fine showings were: J. L. Smith, J. D. Gorden, gardener to Thomas N. Cook; George Page; George Barker, gardener to A. F. Estabrook; E. L. Lewis, gardener to Col. Frederick Mason, and Martin Sullivan. The Mount Desert Nurseries and R. & J. Farquhar each received silver medals for grand herbaceous collections. Jackson Dawson, with a fine collection of seedling roses, and H. Stewart, with a group of hydrangeas, together with some other exhibits, made the show varied and interesting.

Strawberries were in excellent shape, Marshall once more proving to be the winning variety. William Davis, gardener to E. S. Webster, had the best dishes of strawberries, Golden Gate and Barrymore being Marshall's nearest competitors.

, SWEET PEA SHOW, JULY 11-12.

The exhibition hall was well filled on the occasion of

the annual Sweet Pea Show, and the quality of the sweet peas, owing to recent rains and the absence of heat waves, was excellent. Each of the twenty-seven classes brought out good competition. The leading prize winners were Wm. Gray, gardener to Mrs. Wm. B. Leeds, Newport, R. I.; E. H. Wetterlow, gardener to Mrs. Lester Leland, Manchester, Mass.; George Melvin, gardener to Col. Chas. Phaff, South Framingham, Mass.; Miss Fannie Foster, Newport, R. I., and Mrs. P. J.

Exhibits of delphiniums from Mrs. J. M. Sears and Martin Sullivan were fine. E. H. Wetterlow received a cultural certificate for a dozen finely flowered achimenes. H. Stewart had a display of gloxinias, hydrangeas, herbaceous flowers, etc. William Thatcher showed Clero-

dendron fallax and Platyclinis filiformis.

Vegetables were of good quality. For twelve varieties arranged for effect there were six entries. The prize winnrs were: J. O. Christensen, gardener to W. J. Clemsen, Edward Parker, gardener to Oliver Ames, and E. L. Lewis.

#### ANNUAL CONVENTION OF PARK SUPER-INTENDENTS.

The sixteenth annual convention of the American Association of Park Superintendents will be held at Newburgh and New York City, N. Y., August 24, 25, 26 and 27, 1914. Headquarters: Newburgh, Palatine Hotel; New York City, Hotel Astor.

#### Program.

#### MONDAY, AUGUST 24.

3 p. m.-Meeting of the Executive Board. Registra-

tion (Newburgh).

7:30 p. m.—Annual business meeting at headquarters, Palatine Hotel, Newburgh, N. Y. Address of welcome, Mayor of Newburgh; addresses by the Park Commissioners of Newburgh; response, President H. S. Richards. A brief sketch of the life and works of Mr. Andrew Jackson Downing, by Prof. F. A. Waugh. "The Preservation of Natural Woodlands Under Park Conditions," illustrated lecture and discussion led by Ogelsby

#### TUESDAY, AUGUST 25.

7 to 10 a. m.—Visit to Mt. Beacon.

10 a. m.—Start by auto from headquarters at Newburgh to see the important points of interest in the city, and Newburgh parks and playgrounds; thence through Tuxedo Valley to Tuxedo Park. The association will then be entertained at luncheon by Mrs. E. H. Harriman on her estate at Arden. Return to Newburgh early in the evening.

#### WEDNESDAY, AUGUST 26.

10 a. m.—Through the courtesy of Hon. George W. Perkins, president of the Interstate Park Commission, the association will leave Newburgh by boat on a trip down the Hudson River to West Point, stopping at the different points along the Interstate Park river front, where the members and their guests will be conveyed through the Interstate Park. The trip by boat down the Hudson will then be continued, arriving in New York City early in the evening.

#### THURSDAY, AUGUST 27.

9 a. m.—Meet at headquarters, Hotel Astor, New York City. Address of welcome, Mayor of the City of New York; address, Hon, Cabot Ward, president of New York Park Board; response, President H. S. Richards.

#### QUERIES and ANSWERS

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.
Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

Nothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

I would like to ask some of your readers which varieties of trained peach trees are the best to grow on walls outside; also can nectarines be grown that way and finished good? Are the English varieties of peaches and nectarines, the same as we force in the greenhouse, all right for that purpose?—H.

Regarding the question asked in your June number about peaches and nectarines for outside growing, we have the following varieties, growing outside, trained on a wall-Thomas Rivers, Diamond, Dr. Hogg, Royal George, Crimson Galande, Hales Early and Crawford's Early. They have fruited splendidly every year until the present, but last winter being so cold, all the fruit buds were killed, not only on these trees but on all the peach trees around this part of the country.

We put a burlap curtain hung on wires in front of them in the early spring, more as a protection against late frosts, when they are in bloom, than any winter protection. We slide these curtains along during the day and tie them between every second tree. We were told when we planted them we would never get a peach on account of the hot weather in the summer, but we have not had any trouble that way so far, and they make splendid growth during the summer. Regarding the nectarines: we have a tree of Rivers oranges, growing well on a wall. C. Gattrell, Newburyport, Mass.

I have some Costess blue spruce, about ten feet high. From midway up they do not spread out in what some people would call in proportion. What is the best way to develop them-pinching in the tops of all side branches, or cutting out, say eighteen inches of the leads?—J. J. O. Mass.

Replying to question about regaining symmetry in Blue Spruce. In July pinch back about half way, the lateral leaders of the current year's growth, from the lower half of the tree, leaving those of the upper half practically untouched. Continue this for a season or two until the tree regains its symmetry. Then the upper half can be pinched back or summer pruned, as this process is often called, to encourage thickening. It will take two or three years to accomplish what is desired.

As a rule it is not wise to prune back the central leaders unless it is very vigorous, when it can be pinched back to encourage lateral shoots to burst out.

Give the trees a good mulching of well decayed manure. Following transplanting, there is occasionally a lack of symmetry, but in time, under good care, this will be regained.- J. F. J.

#### The Service Bureau National Association of Gardeners

Is maintained for the purpose of providing opportunities for efficient and ambitious men engaged in the profession of gardening. This department of the Association is at the disposal of those who may require the services of capable superintendents, gardeners or assistant gardeners. Address

M. C. EBEL, Sec'y,

National Association of Gardeners,

National Association of Gardeners, Madison, N. J.

#### Tree Owners and Tree Lovers

Will find much to interest and instruct in the

# NEW ILLUSTRATED MAGAZINE

Devoted to Arboriculture and Forestry.

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage.

Published quarterly by

#### THE FROST & BARTLETT COMPANY

26 Cortlandt St.

(Suite 212)

#### en de la companya de ORNAMENTAL IRON

For Lawns and Gardens.

Chas. C. Force & Son,

LET US ESTIMATE ON YOUR WANTS.

Madison Iron Works, Madison, N. J.

# MOONS

450 acres in Trees and Shrubs—over 2,200 kinds to choose from. These are grown wide apart, and in consequence develop into sturdy, well formed specimens so much desired for estate, street, and park use.

Send for catalog. THE WM. H. MOON CO., Morrisville, Pa. Philadelphia Office: S. 12th St.

# HILL'S EVERGREENS Send for Price-list, Mention this magazine.

#### D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

#### U В

Buy your supply direct from the largest importers of Tulips Hyacinths, Narcissus, Lilies and many other Bulbs.

WRITE FOR SPECIAL ADVANCE PRICE LIST.

VAUGHAN'S SEED STORE

CHICAGO, 31 W. Randolph St. NEW YORK, 43 Barclay St. 1 . ACROBINISTING AND FOR P ( ) 1 H1

THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADE NURSERIES.

There you will find all kinds and you can take your pick from the best that is grown Maximum Quarity at Minimum Prices. Write W. R. Chican, Mapager.

THE PALISADES NURSERIES, SPARKILL, N. Y.

# THE GUIDE TO NATURE

EDWARD F. BIGELOW, Managing Editor

A Profusely Illustrated Monthly Magazine Devoted to Commonplace Nature with Uncommon Interest.

> Subscription, \$1.00 per Year Single or Sample Copy, 10c.

Canadian Postage, 24c.; <sup>4</sup> Foreign Postage, 36c.

Published by The Agassiz Association, ARCADIA SOUND BEACH, CONN.

Make all Checks and Money Orders payable to The Agassiz Association.

#### NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists. John Young, secretary, 54 West 28th street, New York.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society. L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 342 West 14th street, New York.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. Meets first Thursday every month, Hor-ticultural Hall, Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Meets third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Meets second and fourth Fridays every month, County Building, Hartford, Conn., 8

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls.

Meets at Poughkeepsie, N. Y., second Wednesday every month except May and

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. J. Meets first Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass. James Whiting, secretary, Amherst, Mass. Meets second Tuesday every month.

The Garden Club of Michigan. Mrs. Edward H. Parker, secretary, 139 Seyburn avenue, Detroit, Mich.

The corresponding secretary will notify members of date and place of meetings. Gardeners' and Florists' Club of Baltimore.

N. F. Flittin, secretary, Paterson Park, Baltimore, Md. Meets second and fourth Monday every month, Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New

York City. Meets monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April. American Museum of Natural History, 77th street and Columbus avenue, New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. Meets first and third Saturday every month, October to April; first Saturday every month, May to September, Horticul-

Tenox Horticultural Society.
G. H. Instone, secretary, Lenox, Mass. Meets first Saturday every month

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary. Meets first Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Meets fourth Friday every month, Mon-mouth Boat Club, Red Bank, N. J.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette street.

Meets first Monday every month, Montreal Florists Exchange.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J.
Meets at Madison, N. J., second Wednes-

day every month, except July and August, 8 p. m.

Nassau County Horticultural Society Ernest Westlake, secretary, Glen Cove, N. Y.
Meets second Wednesday every month,
Pembroke Hall, Glen Cove. N. Y., 6 p. m.

New Bedford Horncultural Society. Jeremiah M. Taber, secretary. Meets first Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street Orange, N. J.

Meets first Monday every month, Jr. O. W. A. M. Hall, Orange, N. J., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London. Conn.

Meets second Thursday every month, 38 Main street, New London, Conn.

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Meets second and fourth Tuesday every month.

New York Florist Club. John Young, secretary, 54 W. 28th street, New York.

Meets second Monday every month, Grand Opera House.

North Shore Horticultural Society. Jas. Slater, secretary, Manchester, Mass. Meets first and third Fridays every

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest. Ill. Meets first Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society. M. J. O'Brien, secretary, Mt. Kisco. N. Y. Meets third Thursday every month, except June, July and August, at 8 p. m.; December, January and February, 3 p. m., Odd Fellows Hall, Mt. Kisco.

Ovster Bay Horticultural Society. Fred Kirkham, secretary, Glen Head, Meets fourth Friday every month, Board of Trade, Oyster Bay, N. Y., 8 p. m

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 711 Westbank Bldg.

Meets first Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, 497 Bradford street, Pasadena, Cal.

Meets first and fourth Friday every month.

Paterson Floricultural Society. Sebastian Hubschmitt, secretary, 61 Seventh avenue, Paterson, N. J.

Meets first Tuesday every month, Ro maine Building, 8 p. m.

Pennsylvania Horticultural Society. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa. Meets third Tuesday every month, Horti cultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut street, Paterson, N. J. Meets first and last Friday every month.

Working Man's Institute, Madison avenue, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa. Meets first Tuesday every month, Horti-cultural Hall, Philadelphia, Pa., 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. Meets first Thursday every month, Fort Pitt Hotel, Pittsburgh, Pa.

Rhode Island Horticultural Society. A. C. Miller, secretary, 7 Irving avenue, Providence, R. I.

Meets fourth Monday every month, Providence Public Library, 8 p. m.

Shelter Island Horticultural and Agricul-

tural Society.
Fred Kirkham, secretary, Shelter Island, N. Y.

Meets first and third Thursdays every month.

Southampton Horticultural Society. William McLeod, secretary. Meets first Thursday every month, Memorial Hall, Southampton, N. Y.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarytown, N. Y. Meets last Tuesday every month, except December, Corporation Building, Tarrytown, N. Y., 7:30 p. m. Annual meeting last Thursday in December.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park. N. Y.

Meets first Wednesday every month, Parish House, Tuxedo Park.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington D. C.

Meets first Monday every month.

Westchester and Fairfield Horticultural Society.

J. B. McArdle, secretary, Greenwich, Conn. Meets second Friday every month, Dor-an's Hall, Greenwich, Conn., 8 p. m.

Yonkers Horticultural Society. Thos. Mahoney, secretary, Yonkers, N. Y. Meets first Friday every month, Hollywood Inn. Yonkers, N. Y., 8 p. m.

#### GARDENERS DIARY

American Institute, New York. Dahlia show, September 22-24. (hrysantheanum show, November 4-6.

Elberon Horticultural Society. Chrysanthemum show, Asbury Park, N. J., November 3, 4, 5.

Horticultural Society of New York. Annual fall show, American Museum of Natural History.

Lancaster County Florists' Club, Lancaster, Pa. Fall show, November 5-7.

Lenox Horticultural Society, Lenox, Mass. Summer Show, July 22 and 23. Fall Show, October 22 and 23.

Massachusetts Horticultural Society, Horticultural Hall, Boston, Mass. Gladiolus show, August 8-9. Dahlia show, September 12-13. Fruit and vegetable show, October 3-4. Chrysanthemum show, November 5-8.

Monmouth County Horticultural Society. Fall Show, Red Bank, N. J., October 28 and 29.

Morris County Gardeners' and Florists' Club. Fall show, Madison, N. J., October

Nassau County Horticultural Society, Glen Cove, N. Y. Dahlia show, October 6. Chrysanthemum show, October 29, 30.

New Jersey Floricultural Society, Orange, N. J. Dahlia and fruit show, October

Newport Horticultural Society, Newport, R. I. Summer show, August 12 and 13.

North Westchester Horticultural and Agricultural Society. Annual show, Mt. Kisco, N. Y., October 30-November 1.

Oyster Bay Horticultural Society, Oyster Bay, N. Y. Dahlia show, September 30-October 1. Chrysanthemum show, October

Society of American Florists. Out-door exhibition, Boston, Mass., August 18-21.

Tarrytown Horticultural Society. Annual Fall Show, Tarrytown, N. Y.

Westchester and Fairfield Horticultural Society. Fall show, New Rochelle, N. November 4, 5, 6.

#### NASSAU COUNTY HORTICULTURAL SOCIETY ANNUAL ROSE SHOW.

The annual rose show of the Nassau County Horticultural Society was held at the Nassau County Club by kind permission of the governors of the club on Tuesday, June 16. Owing to the international polo match being on the same day the attendance was not so large as on the two previous years, but there was a grand display of roses, sweet peas, perennials, vegetables and fruit, but the entries were not quite so many this year, as a lot of the best H. T. or tea roses were past the perfection mark, the hot sun and drying winds of the past week having been very hard

# A Bright New Book of 182 Pages for 1914

Telling the Plain Truth about BURPEE-QUALITY SEEDS, is mailed Free of Cost to Gardeners everywhere upon Application to W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia

The judges were James Duthie and Fred Kirkham, of Oyster Bay, and William Gray, of Glen Cove. The schedule and awards were as follows:

Class 1. Best collection of outdoor roses, 25 varieties, 3 flowers of each—John T. Pratt (J. W. Everitt, gardener), first; Harvey S. Ladew (Joseph Adler, gardener), second. Class 2. Twelve distinct varieties. H. P. roses, 3 of each-W. E. Kimball (James McCarthy, gardener), first. Class 3. Twelve distinct varieties of H. T. or tea roses, 3 of each—H. L. Pratt (Henry Gaut, gardener), first; W. E. Kimball second. Class 4. Six distinct varieties, H. P. roses, 3 of each-Paul Dana (James Gladstone, gardener), first; W. E. Kimball, second. Class 5. Six distinct varieties, H. T. or tea roses, 3 of each—C. F. Cartledge (W. Noonan, gardener), first; Mrs. J. C. Ayer (Harry Jones, gardener), second. Class 6. Vase of 12 H. P. roses, 1 variety—C. F. Cartledge, first; Paul Dana, second. Class Vase of 12 H. T. or tea roses, 1 variety -H. L. Pratt, first; Mrs. F. S. Smithers (Valentine Cleres, gardener), second. Class Vase of 12 roses, assorted varieties-Mrs. J. C. Ayer, first; W. E. Kimball, second. Class 9. Twelve sprays rambler roses, any color—Mrs. F. S. Smithers, first.

#### Out-Door Flowers.

Class 10. Collection of hardy perennials, 25 varieties, no bulbs—H. L. Pratt, first. Class 11—Collection hardy perennials, 25 varieties—H. L. Pratt, first. Class 12. Six vases annuals, 1 variety in a vase—H. L. Pratt, first. Class 13. vases sweet peas, 6 varieties, 25 sprays each-Mrs. Benjamin Stern (Herman Gold, gardener), first; H. L. Pratt, second. Class 14. One vase sweet peas, 25 sprays-H. L. Pratt, first; C. F. Cartledge, second. Class 15. Vase of peonies, 12 flowers—Mrs. J. C. Ayer, first; W. V. Hester (Herman Boettcher, gardener), second. Class 17. Vase of delphinium, 12 spikes—Paul Dana, first; Harvey S. Ladew, second. Class 18. Vase digitalis, 12 spikes—W. E. Kimball, first; Paul Dana, second. Class 20. Vase, cut flowering tree or shrub-Mrs. J. C. Ayer, first; W. E. Kimball, second.

#### Vegetables.

Class 21. Collection 12 kinds vegetables (A. G. Hodenpyle Special)—H. L. Pratt, first; Percy Chubb (Frank Honeyman. gardener), second. Class 22. Collection of 6 vegetables grown outdoors-A. G. Hodenpyle (Frank Petroccia, gardener), first. Class 23. Twenty-five pods peas—Paul Dana, first; A. G. Hodenpyle, second. Class 24. Three heads cauliflower-A. G. Hoden- pyle, first. Class 25. Three heads lettuce
 W. V. Hester, first; Mrs. F. S. Smithers. second. Class 26. One bunch asparagus— Mrs. C. D. Smithers, first; A. G. Hodenpyle, second.

#### Fruit.

Class 27. Twelve largest strawberries— Mrs. F. S. Smithers, first; Mrs. C. D. Smithers, second. Class 28. Six varieties strawberries, 12 of each-Howard C. Smith (Alfred Walker, gardener), first; J. T. James Macdonald was manager of the outdoor fruit—A. G. Hodenpyle, first.

#### Table Decoration.

Class 30. Best table decoration, table set for six persons-Percy Chubb, with a table of sweet peas, spirea and maiden hair fern, first; Mrs. J. C. Ayer (Harry Jones, gardener), with a table of Mrs. Aaron Ward roses, second. HARRY JONES, Secretary.

#### WESTCHESTER AND FAIRFIELD HOR-TICULTURAL SOCIETY SHOW.

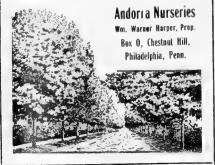
A remarkably fine exhibition of flowers, fruits, vegetables, etc., was held by this society June 19-20, on the beautiful grounds of the United Hospital at Portchester, A large and commodious tent was erected by the hospital management directly over a large artificial lily pond, a permanent feature of the grounds, and which formed a fine central feature, and setting for the exhibition. There was a good attendance and the society gained many new friends. Everything exhibited was of the very best quality. There was keen competition in all classes and the entries were very numerous. Remarkable displays of sweet peas were in evidence, both indoor and outdoor grown, and the keenest rivalry existed in these classes. The roses were also remarkable for their fine quality and were exhibited in great numbers. wonderful white rose Frau Karl Druschkii was shown in grand form, while several very fine vases were entered in the special class for twelve blooms of this variety.

A number of novelties were noted in the various collections of plants, etc. The new hardy shrub Salvia Greggi was exhibited and should prove of value and a welcome addition to the list of shrubs, as the crimson shade blends harmoniously with the

## THEANDORRAWAY

f growing Trees and Shrubs is to cultivate and recultivate, thus conserving the soil moisture during the hot months and helping the specimens to retain all the vigor that nature and expert attention give to trees and plants grown the Andorra Way.

See Andorra when on your vacation trip. Come by motor, by train, or by trolley. Andorra is a complete planting of splendid specimens, that can be re-moved with safety and will add beauty to the surroundings of any home. Write for our planting booklet, and for advice and assistance in your landscaping



that are in season at this time.

Two new hardy nympheas were noted in the display, namely, N. Escarboucle and N. Attraction, and both are very fine varieties and welcome additions to the already long list of this class.

A noteworthy feature of the exhibition was a collection of 18 varieties of Spencer type sweet peas from John I. Downey. Portchester, N. Y. (Thos. Ryan, gardener), who was awarded a certificate of merit for the exhibit.

A very fine exhibit of Sweet William was exhibited by Wm. Shillaker, Essex Falls, N. J. (J. P. Sorenson, gardener). This oldtime flower is always popular, and may be enjoyed by the rich and poor alike. cultural certificate was awarded the display.

The class for floral decoration of a dinner table, seating eight persons, was a charming feature of the show. The first prize was awarded to Joseph Lovie, Mamaroneck, N. Y., for a very dainty and artistically arranged combination of sweet peas and adiantum foliage; second prize being awarded to Fred Lagerstam, of Greenwich, Conn., for an arrangement of rambler roses, and the third prize was carried off by a clever arrangement of deutzia candidissima used in combination with Henchera Sangunia. by James Linane, Rye. N. Y. All the tables were well arranged and showed very plainly the gardeners' ability to do decorative work in connection with his calling.

The awards of the judges in the other competitive classes are as follows:

Roses.—Collection H. P. roses, 12 varieties of 3 each; Mrs. A. P. Stokes, Morton, Conn. 1st; Mr. G. D. Barron, Rye, N. Y. (Jas. Linane, gardener), 2d. Collection II. P. roses, 6 varieties, 3 each; E. C. Benedict, Greenwich, Conn. (Robt. Allen, gardener), Greenwich, Conn. (Robt. Allen, gardener), first; Mrs. Henry Schaefer, Greenwich, Conn. (Edw. Stumpf, gardener), 3rd. Vase of assorted H. P. roses; Mrs. F. A. Constable, Mamaroneck, N. Y. (Jas. Stuart, gardener), 1st; G. D. Baron, 2d; Mrs. Wm. G. Nichols, Rye, N. Y. (John McAllister, gardener), 3rd. Collection H. T. roses, 12 varieties, 3 each; Mrs. A. P. Stokes, Newvarieties, 3 each; Mrs. A. P. Stokes, Newton, Conn. (A. Whitelaw, gardener), 1st; Mrs. H. S. Bowen, Greenwich, Conn. (John Watts, gardener), 2d. Vase of roses arranged for effect: Robt. Mallory, Port-chester. N. Y. (Wm. Smith, gardener), 1st: Robert Grunnert, Greenwich, Conn., 2d; C. T. Willis, Greenwich, Coun. (Martin Glendon. gardener), 3rd. Best collection roses to cover 50 sq. ft. floor space: H. Darlington, Mamaroneck, N. Y. (P. W. Popp, gardener). 1st. Best 12 blooms Frau Karl Druschkii roses: H. Darlington, 1st; Mrs. Wm, G. Nichols, 2nd; Robt, Grunnert, 3rd. Best collection hardy flowers, 10 species: Mrs. F. A. Constable, 1st; Robt. Mallory, 2d; H. Darlington, 3rd. Best collection hardy flowers, 9 species: Robt. Mallory. Mrs. A. A. Anderson, Greenwich, Conn. (Robt. Williams, gardener). 2d; Mrs. J. E. Rantz Rees, Greenwich, Conn. Dell, gardener), 3rd. Collection flowers cut from hardy shrubs, 12 varieties; G. D. Barron, 1st; Mrs. I. C. Bruce, Greenwich. Conn. (John Andrew, gardener), 2d; II. Darlington, 3rd.

Sweet Peas. Best collection 18 varieties 25 sprays each: D. G. Reid, Irvington-on-Hudson, 1st. Collection sweet peas, 12 variudison, 1st. Conection sweet peas, 12 varieties, 25 sprays each; D. G. Reid, 1st. Collection, 6 varieties, 15 sprays each; Mrs. A. A. Anderson, 1st; Mrs. C. A. Gould, Portchester, N. Y. (W. H. Watermoneki, gardener), 2d; Mrs. F. A. Constable, 3rd. Post collection, 2 varieties, 15 Post collection, 3 varieties, 15 sprays e : the roses and sweet peas. Herbaceous flow-Mrs. C. A. Gould, 1st; Robt. Grunnert, 2d. ers were not represented in quantity, but Basket of sweet peas arranged for effect; there is a growing demand for them. The

overabundance of white-flowered shrubs | Mrs. Wm. G. Nichols, 1st; H. Darlington, 2d. Vase of sweet peas arranged for effect: Mrs. A. A. Anderson, 1st; Wm. Shillaber, 2d. Vase of irises, one or more varieties: Mrs. J. E. R. Rees, 1st; H. Darlington, 2d. Vase of lilies, one or more varieties: Robt. Mallory, 1st. Vase of moss roses: H. Darlington, 1st.

Vegetables and Fruits.—Best nine varieties, arranged for effect: Adrian Iselin, Jr., New Rochelle, N. Y. (Joseph Tieman, gardener), 1st; H. F. Shoemaker, Riverside, Conn. (Jas. Maclean, gardener), 2d. Three heads lettuce: Mrs. Arnold Schlaet, Saugatuck, Conn. (Edmund Laurence, gardener), 1st; Robt. Grunnert, 2d. Twenty-five pods peas: Mrs. A. Schlaet, 1st; H. F. Shoemaker, 2d. Best quart string beans: Adrian Isclin, Jr., 1st. Three heads lettuce: Chas. Mallory (W. J. Sealy, gardener), 1st; Robt. Mallory, 2d. Best two cucumbers: G. D. Barron, 1st. Best 12 tomatoes: Mrs. F. A. Constable, 1st; Robt, Grunnert, 2d, Strawberries, best three quarts, three varieties: Mrs. G. F. Chamblerlain, Harrison. N. Y. (John Shore, gardener), 1st; Robt. Grunnert, 2d. Strawberries, best two quarts, two varieties: J. A. Topping, Greenwich, Conn. (Fred Lageretam, gar-dener), 1st; A. G. Smith, 2d. Strawberries, best one quart, one variety: J. A. Topping, lst: Mrs. F. A. Constable 2d. Best quart cherries: Mrs. Albert Crane, Stamford, Conn. (Alex Geddes, gardener), 1st; Adrian Iselin, Jr., 2d.

Miscellaneous.—Best pair of palms: Mrs. F. A. Constable, 1st; Mrs. A. A. Anderson, 2d. Best specimen: Mrs. G. F. Chamberlain. 1st; Mrs. F. A. Constable, 2d. Best foliage plant other than palms: Mrs. F. stable, 1st; John I. Downey, 2d. Hydrangeas, best pair: Chas. Mellon, 1st; G. D. Barron, 2d. Best specimen: John I. Lowney, 1st. Best pair not over 10-inch posts: Chas. Mallory, 1st. Best three fuchsia plants: Chas. Mallory, 1st: Mrs. F. A. Constable, 2d. Best six gloxinias: Mrs. A. A. Anderson, 1st; G. D. Barron, 2d. Best six tuberous begonias: Mrs. A. A. Anderson, 1st; Robt. Grunnert. 2d. P. W. POPP, Secretary.

#### JUNE SHOW, NEWPORT, R. I.

The grounds of Senator George Peabody Wetmore, where the second annual exhibition under the joint auspices of the Newport Garden Association and Horticultural Society was held, proved to be ad mirably adapted for flower show purposes. The general layout was planned by H. W. II. Powell, of this city, and worked very well. The entries staged were sufficient to enable the committee to carry out the plan in a satisfactory way. Two tents, placed some distance apart on the south side of the lot, were sufficient to accommodate greenhouse foliage and flowering plants, alse a part of the cut flower display, among which was a big entry of roses; these were the grandest lot ever staged here at this season of the year. Killarney Queen attracted much attention by its fine bright

The groups of plants were of good quality, but staged mostly after the old style; only one exhibitor had the courage to break away and set up in a natural man ner. In flowering plants, Calceolarias and Schizanthuses were leaders. The display of orchids in bloom was larger than ever. On the north side of the ground were two tents, one being for the cut flowers, the other for fruit and vegetables. Cut flowers were never seen in better form, especially

# EMIL A. LIPPMAN

## GREENHOUSE SHADING

No. 6 High Street MORRISTOWN, N. J.

Here is what Mr. Fisher says:

Your shading is all O. K. Send 3 gals, more at once.

Yours truly.

R. FISHER, Bernardsville, N. J.

reds of perennials and biennials laid out in the grounds were all filled up with very well grown stock, which made a good showing. Among these were Delphinium, Digitalis, Campanula, Dianthus, Pansy, Viola, Snapdragon and Gladiolus.

Following is a list of the most important

first awards:

Bed canterbury bells, Mrs. H. M. Brooks; gardener, James Bond. Bed sweet william, James Bond. Bed stocks, Arthur Curtis James; gardener, John Gratrix. Bed antirrhinum, Mrs. W. W. Sherman; gardener. Andrew Ramsay. Bed bulbous plants, Mrs. French Vanderbilt; gardener, Daniel Hay. Tub sweet peas, Mrs. W. G. Weld: gardener, James Watt. Two beds violas, Andrew Ramsay. Display schizanthus, Vincent Astor; gardener, James Boyd. Bed hydrangeas, Oscar Schultz. Trained retinospora, Hugh Meikle. Bed roses, E. Kempenaar. Display topiary plants, Bobbink & Atkins. Gloxinias, Mrs. T. M. Davis; gar-Akins, Gloximas, Mrs. T. M. Davis; gardener, Victor May. Calceolarias, James Bond. Bed petunias, Andrew Ramsay. White reses, Mrs. W. B. Leeds; gardener, W. Gray. Yellow carnations, August Belmont; gardener, John Forbes. Jacqueminot roses, Miss Edith Wetmore. Group foliage plants. J. J. Van Allen; gardener, Richard Gardner, Ferns, James Bond, Table plants, James Bond, Display orchids, Paul de Nave, Specimen kentia, James Boyd, Specimen phoenix, James Boyd. Specimen palm, Mrs. H. McK. Twombly; gardener, Alexander Fraser. Specimen fern, James Bond. Group foliage and flowering plants for Hitchings & Co. silver cup, James Bond. Three orchids, Mrs. Stuart Duncan; gardener, W. McGillvary. Six tuberous plants; James Watt. Twelve pots annuals, James Bond.

In the cut rose section: C. M. Bugholt, J. B. Urquhait, W. Gray, Arthur Leary, Victor May, C. Robertson, Hugh William son, W. Mackay and John Forbes. Sweet peas: James Watt, Victor May, C. M. Bugholt, W. MacKay, F. P. Webber and Thomas Brook. Fruit: The firsts were G. Fraser, for black grapes; Victor May, for white grapes: James McLeish, nectarines; Daniel Hay, for three varieties of straw-

#### **ALPHANO HUMUS**

Nature's Soil Builder

Alphano Humus Co. 17 G. Battery Place, New York tion of strawberries. Vegetables: J. B. Urquhart, winning a silver cup for twelve distinct kinds, and also a prize for six kinds.

Alex. Fraser was leader in centre-pieces specials and fancy baskets; a miniature Japanese flower garden, by Hugh Williamson; fruited grape vines in tubs, by W. MacKay.

The judges were, from the Garden Association-Miss Edith Wetmore, Henry S. Redmond, Ernest Howe; and from the Horticultural Society, Bruce Butterton, James Robertson and Andrew J. Dorward.

The dinner to the judges, workers and visiting exhibitors at the show was held at the "Bellvue" on Thursday evening, about thirty being present, and they enjoyed the repast tendered the society by H. A. C. Taylor, to whom our president, William Mackay, is gardener. The dinner over, President Mackay called upon many of those present for remarks. As manager, Joseph S. Manda spoke of the success of the show. C. H. Atkins spoke in a complimentary vein of what has been accomplished. Bruce Butterton, for the judges, commended the arrangement of exhibits, members of a class generally having been found together. Other speakers were: John E. Lager, John S. Hay, H. T. Beers, of the A. N. Pierson, Inc.; James Robertson, Andrew S. Meikle, chairman of the committee of arrangements, and Secretary

iam Gray. Votes of thanks were passed to Mr. Taylor for his thoughtfulness in providing the banquet; to Mr. Powell and Miss Wetmore, of the Garden Association, for their untiring efforts to make the show a success; to Mr. Manda, the manager, and to the local press

EXCHANGE.

#### OYSTER BAY HORTICULTURAL SO-CIETY ANNUAL JUNE SHOW.

The June exhibition of the Oyster Bay Horticultural Society was held in the Fireman's Hall, Thursday, June 18. The exhibition was the largest held since the establishment of this society and all classes were well filled. The roses were the leading feature and Benjamin Stern secured first prize for best collection of H. P.'s. gardener, W. Robertson. Best collection H. T., E. F. Whitney, gardener, James Duckham. Best three varieties H. P. white, first, Albert Straus; gardener, Michael O'Niel. Best collection, three varieties H. T. pink, first, F. N. Doubleday, Esq.: gardener, F. Gale. Best six H. P. white, first, Mrs. C. L. Tiffany; gardener, F. Kyle. Best six H. P. pink, first, Charles Mapes. six any other color, first, F. Kyle, Best three H. P. white, Chas. Mapes, first. He also received first for best three pink and best three any other color. W. Robertson first for six Teas or H. T. white; also first for best six pink and first for any other color. Best three T. or H. T. white, first, F. Gale. Best three Teas or H. T. pink first, Chas. Mapes. Best three H. T., any other color, first, F. Gale. Best collection climbing roses, first, Jas. Duckham. Best vase climbing roses, first, John A. Garver, Esq., gardener John Somcisk.

There was keen competition in the vegetable classes and E. F. Whitney secured first for collection of six varieties, gardener, Jas. Duckham, with H. E. Smith second, gardener, Alfred Walker. Best three lettuce, James Duckham. Best six beets, first, Walker. Best six carrots, first, A. Walker. Best six turnips, first, F. Gale. Best twelve plants spinach, first, F. Gale. Best asparagus, first, Chas, Movses. Best

first, Jas. Duckham. Best radish, first, A. Walker. Best brace cucumbers, first, Geo. Bullock, Esq.; gardener, D. Horeshall. Best six tomatoes, first, Jas. Duckham, Best six onions, first, Michael O'Niel.

Best collection strawberries, first, Walker. Best twelve strawberries, one variety, for size, first, A. Walker. Best Best twelve strawberries, one variety, for flavor, first, A. Walker. Best six strawberries, one variety, for size, first, Michael O'Neil. Best six strawberries, one variety, for flavor. first, Chas. Mapes. Dish any other fruit, first, Chas. Mapes. Best basket of strawberries arranged for effect, first, A. Walker.

Best collection hardy flowers, first, John ovesick; second. A. Walker. Best vase Lovesick; second. A. Delphiniums, first, John Lovesick; second, F. Kyle. Best vase Sweet William, first, Jas. Duckham. Best vase Digatalis, first, Jas. Duckham. Best vase Campanula, first, John Lovesick: second. F. Kyle. Best six varieties Sweet Peas, first, W. Robertson. Best collection Poenies, first. Michael O'Neil. Best bouquet of hardy flowers, first, John Lovesick. Best collection hardy flowering shrubs, first, John Lovesick. Best specimen Nephroepis, first, John Lovesick. Best specimen fern, any variety, first, John T. Ingram. Best foliage plant, first, John Lovesick. Best three plants of orchid in flower, first, John T. Ingram. Best specimen Hydrangea, any size, first, F. Kyle. Best two Hydrangea, 8-inch pots, first, F. Kyle. Best two Hydrangea, 5-inch pots, first, F. Kyle. Best pot of Begonia, first, John Lovesick. Any other pot plant, first, David Hothersall. Best collection Sweet Peas, John T. Ingram's special, first, Wm. Robertson; second, Jas. Duckham.

W. Robertson received C. C. for collection roses. a

F. Duckham received C. C. for collection of roses.

T. A. Havemyer, C. C. for collection peonies; also C. C. for an excellent exhibit of hardy flowers and shrubs; gardener, A. La Hodney.

J. T. Ingram, H. M. for collection climb-

W. Robertson, C. C. for collection Sweet Peas.

Frank Petroccio, C. C. for exhibit of lettuce; also C. C. for collection of vegetables. E. M. Townsend, Esq., C. C. for collection strawberries, gardener, J. Duthie. F. KIRKHAM, Secretary.

#### NEW BEDFORD HORTICULTURAL SOCIETY JUNE SHOW.

The two June shows of the New Bedford Horticultural Society, the peony show on June 17, and the rose on June 24, showed a decided increase in interest and proved that these two beautiful flowers are gaining in favor each year. Notwithstanding the trying season, probably the worst in a decade at least, the exhibits of peonies were remarkable and in consideration of the fact that this flower is just coming to the notice of flower lovers in this section, the committee feel that an annual exhibit is assured.

Through the center of the hall was a long table entirely devoted to peonies, the principal exhibitor being E. J. Shaylor, of Auburndale, with 75 specimen blooms (for exhibition only), and J. H. Hathaway, an enthusiastic amateur of this city, with about the same number, conspicuous among which were fine specimens of Japanese

Among Mr. Shaylor's exhibit were to be

berries, and John Baumgartner, for collect rhubarb, first, C. Mapes. Best pods of seen four of his seedlings which do credit tion of strawberries. Vegetables: J. B. peas, first, A. Walker. Best string beans, to any grower and strongly impressed the peony enthusiasts with the fact that as good novelties can be bought at home as those that come from far away France or England. His "Mary Woodbury Shaylor," as seen in the field, takes rank with Kel-way's great success, Lady Alexandria Duff.

The other principal exhibitors were D. F. Roy, who secured the Henry F. Michell silver medal for the best collection; James Garthly, Wm. Keith, J. H. McVicker and F. G. Tripp.

Bronze medals were awarded to J. H. Hathaway and W. F. Turner for their ex-

hibits.

The rose show has always been the most popular of all exhibits and this year proved no exception. In all previous years the exhibits of Miss Fay and M. H. Walsh have been the main supports, but this year, owing to a backward season, they were unable to send any flowers. While. owing to this fact, the wonderful possibilties of the rose were not as strongly depicted, yet the show was a grand success. Local growers came nobly to the rescue and never before has such a varied assortment of roses been put before the public of this city, giving enthusiasts a splendid chance for choosing their favorites. open class D. F. Roy, "The Moorings," Marion captured all the prizes, while A. R. Griffin, superintendent of the Galena Stone estate, received a well merited certificate of merit for specimen blooms. James Garthly and Wm. Keith had their usual fine displays tastefully arranged.

Among the amateurs, Miss Alice Stockpole, of Mattapoisett, was the largest exhibitor and prize winner, sixteen firsts being her record for the day. F. G. Tripp, of this city, had a large display and H. B. Parlow, J. C. Forbes and W. F. Turner

were close rivals.

Perhaps the table attracting the most attention was that occupied by A. J. Fish, of this city, with thirteen varieties of large flowered hardy climbing roses, such as Silver Morn, Dr. Van Fleet, Wm. Egan, Climbing American Beauty and Christine Wright. These were cut with long stems and made a most attractive display. Hybrid Teas and teas were decidedly in evidence. conspicuous among them being The Daily Mail, Konigin Carola, La Tosca, Lady Hillingdon, J. J. L. Mock, Lady Pirrie, Mabel Drew and Mrs. Gordon Sloane. W. F. TURNER.

#### NEW LONDON HORTICULTURAL SOCIETY ROSE EXHIBITION.

The New London Horticultural Society held its annual exhibition of roses, July 1. The rooms of the society were packed with members and friends, many having to stand during the lecture. Mr. Alex. Cummings. of the A. N. Pearsons Company, Cromwell, was the speaker. His remarks on culture of the rose as to soil, pruning, protecting during winter, and also some of the best varieties grown for profit, were very interesting and profitable to the many present. At the close of his address an interesting discussion took place in which Mr. Cummings very readily gave informa tion to the various queries. A very fine display was on view from the Cromwell gardens, also from local growers. Mr. Cummings was extended a rising vote of thanks for his remarks. The regular monthly meeting of the society will be held July 9, at which it is proposed to have held July 9, at walker a display of sweet peas. STANLEY JORDAN.

On Friday, June 12, a party of friends met at Kineraig, Tuxedo Park, N. Y., and were entertained to a shooting contest, when some very fine shooting took place. Our host being a little off color did not score so well as he did at our previous contest. A fine atternoon's sport was enjoyed by all those present. The ranges were 75 feet and 150 (cet); the scores were as follows:

75 feet possible 125.	
Simon Hilmers	113
Alex. Roy	103
George Humphreys	99
David S. Millar	96
J. James	11.
James MacMachan	93
Frank Barbar	- 88
Fred Patron	82
Patrick Cassidy	69
Joseph Cooper	68
150 feet possible 25.	
Alex Roy	19
Simon Hilmers	15
J. James .	12
Frank Barbar	11
David S. Millar .	51
Joseph Cooper	- 9
	.5
Patrick Cassidy	6
Fred Patron	- ti
George Humphrey	-1
THÛS, WILSON, Seco	etary.

#### CONNECTICUT HORTICULTURAL SOCIETY.

The regular bi-monthly meeting of the Connecticut Horticultural Society was held on Friday evening, June 26. An invitation was received from Professor A. G. Gulley. of the Connecticut Agricultural College, to meet at that place with the Pomological Society and the vegetable growers on July 22 and 23, and it was unanimously voted

to accept the invitation.

This was hardy perennials' night and without doubt one of the finest collections of these beautiful flowers was staged by Warren C. Mason, John F. Huss and W. W. Hunt. The collection contained in the neighborhood of 161 varieties, and add to this magnificent collection six varieties of Canterbury Bells, exhibited by Fred K. Wisner, and thirty varieties of Sweet Peas. the exhibit of John C. Willard, it made a George H. Hollister, John Gerard and George B. Baker judges, and they awarded the exhibits of Messrs. Mason and Willard a first clas certificate each. The Canterbury Bells received a certificate of merit. Both Messrs. Huss and Hunt received certificates of merit for their displays. Mr. Mason remarked on the peculiarities of some of the varieties in his collection, selecting certain speciments for their hardiness and fitness for filling in, etc. The meeting was well attended and thoroughly enjoyed by the The next meeting will be held August 28.

ALFRED DIXON, Secretary.

#### NASSAU COUNTY HORTICULTURAL SOCIETY.

County Horticultural Society was held on fine attendance. There will be athletic Wednesday, July 8, at Pembroke Hall, Glen sports of all kinds, including baseball, foot Cove, President Henry Gaut in the chair.

Special prizes for the society's fall shows were received from C. F. Cartledge, Esq., R. Meserole, W. R. Kinnear, E. M. Underhill and the Glen Cove Echo.

John Fogerty and Fred Titus were elected cellent shore dinner provided in connection

TUXEDO HORTICULTURAL SOCIETY, to active membership, and two petitions for membership were received.

The exhibits for this meeting were all

sweet peas, and the number and quality of the exhibits far surpassed any previous exhibits at this society's monthly meetings. Henry Gaut cleared the board by taking first prize in all three classes, viz., 25 white, 25 pink and 25 any other color. He also received a cultural certificate for a nne vase of Isabelle Malcolm, Herman Boettcher cultural certificate for 14 distinct vases, and George Ashworth, honorable mention for vase of Flora Norton (Spencer) copy of the schedule of the New York State Fair at Syracuse in August was received, and it was resolved to make a collective display of the vegetables representative of the society. It was also resolved that we adopt a standard scale for judging flowers and vegetables at the society's Chrysanthemums, carnations and roses will be judged by the official scale of points of their respective national societies, and a committee was formed to compile a scale for judging vegetables. Mr. Allan Jenkins and Mr. Baldwin were visitors and addressed the meeting. Exhibits for next meeting, August 12, will be for six kinds of vegetables.

HARRY JONES, Cor. Sec'y.

#### THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

Climatic changes and weather conditions do not seem to affect the enthusiasm of the wide-awake aggregation of private gar-deners known as the Westchester and Fairfield Horticultural Society, who held their regular meeting in Doran's Hall, Greenwich, Conn., Friday evening, July 10, with a fine attendance, President Robert Williamson presiding. One new member was elected, and a number of propositions for membership were received. The summer show committee in charge of the exhibition held in June, made their final report, and it is a pleasure to record the fact that there is a substantial balance in favor of the society. The committee, including Mr. W. J. Scaley, under whose able management the exhibition was staged, received the thanks of the society. It was also voted to send resolutions of appreciation to the many friends who in various ways contributed to the general result and helped to make the best summer show held in recent vears.

Letters from several friends of the society were read offering substantial additions to the prize list of the fall show, to be held in Germania Hall, New Rochelle, X. Y., November 4, 5, 6, inclusive. The schedule is being prepared and will be issued when ready. An attractive list of prizes will be offered, including cash gold, silver and bronze medals, caps, cut glass and silverware articles. There will be classes for outdoor and indoor grown flowers, fruits and vegetables, table decorations, baskets and other floral decorative work. That all may have a chance it is necessary to publish the fact that Carter & Co., of Boston, offer prizes for 25 fruits of their Sunrise" tomato.

The annual outing will be held august 11 at Edwards' Rye Beach Hotel. The success The monthly meeting of the Nassau of our outings held in the past will assure a ball, tug of war, etc. Provision will also be made for ladies' races, and games and pastimes for the little folks. Regarding the matter of lunch, everybody may suit themselves; there will, however, he an ex-

with the outrag at \$150 a person. Those desiring dinner tickets will kindly notify Mr. Wm. I Scaley, or Portchester, N. Y. as early as convenient that ample provision may be made in advance, and not necessitate half portions, which condition of affairs sometimes result from a rush of unexpected guests. We can assure all who attend a pleasant day's sport. games will start promptly at 10:30 o'clock a. m. During recess Mr. James Melcher, of Stamford, Conn., one of our fellow members, entertained the "boys" with a number of very clever sleight o' hand tricks that were enjoyed by all. Our genial friend from Stamford, Conn., also amused us with some

humorous songs and stories, On the exhibition tables there was a shorce and varied display of cut dowers and flowering plants. A magnificent specimen of the new geranium "Helen Michell" in a 4-inch pot, exhibited by Alex Marshall, was awarded a cultural certificate. Mr. Marshall was also highly commended for a vase of climbing rose "American Pillar," and a cattleya hybrid. James Stuart was highly commended for a fine collection of hollyhocks. The thanks of the society was awarded the other exhibitors. Specimen plant Lilium Auratum, from Fred Lagerstam. Vase of the new Achillea Perry's White from A. Bieschke; vase of assorted Japan iris from John McAllister; vase of Lathyrus Catifolius from E. Johnson: climbing rose Blush Rambler from A. Whitelaw: Allamanda Shotti from P. W.

Don't forget the outing, which will take place before the next meeting to be held at Greenwich, August 14.

P. W. POPP, Secretary.

While at the Convention you will be cordially welcomed at CEDARACRES Gladiolus Farm

B. HAMMOND TRACY WENHAM, MASSACHUSETTS

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection. We can prove it.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55 5 lb. package making 150 gallons,

exp. extra 1.80 25 lb. package making 750 gailons, exp. extra 6.25

50 lb. package making 1,500 gallons, extra 12.50

100 lb. package making 3,000 gallons, exp. extra 20.00

Barrels from 250 to 300 lbs., 18c. per lb.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon. 1½ gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

#### BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.

or teller a construction of the first particular and the second of the s

# MR. GARDENER:

# Let That Tree Die, and You Will Never See It Replaced

YOU KNOW how long it has taken that tree to attain those stately proportions.

YOU KNOW how irreparable the loss should it die.

YOU KNOW how imminent is the danger from insects and fungi.

YOU KNOW how devitalising, how unsightly, and how difficult to reach is that dead wood.

YOU KNOW how surely fatal are those neglected cavities—neglected decaying stumps, neglected wounds, neglected borer holes are the causes.

Then Why Wait Longer? Time Is Precious. CALL US IN

WE HAVE the KNOWLEDGE, the EXPERI-ENCE, the MEN, the TOOLS.

#### JOHN T. WITHERS Inc.

Landscape Architect and Forester

1 Montgomery St.

# Townshing with the control of the

Jersey City, N. J.

X/E have about 500 Specimen Evergreens in variety, suitable for moving in the months of August and early September. Descriptions of same sent on application.

t 👉 a ale anti mens fillificansana area ( a e e a e e a carente

Send for our new Bulb Catalogue

# International Nurseries, Inc.

1905 West Farms Road, New York City

PHONE 4028 TREMONT.

fallighter debut the state of t

# Gardeners All Over the World Use

**APHINE**, for spraying against all sap-sucking insects, such as aphis, red spider, thrips, mealy bug and soft scale; and for cleansing palms and decorative stock generally.

**NIKOTIANA**, for fumigating, a nicotine solution which does not fill the house with smoke as does tobacco paper or dust. It is vaporized in pans over small lamps, or by painting the steam pipes.

FUNGINE, to control mildew, rust or bench rot in the greenhouse, a spraying material; an infallible remedy. It does not stain foliage as Bordeaux or lime and sulphur, but cleanses it.

**VERMINE**, to rid the greenhouse soil of eel worm, root maggots and other soil vermin, will be found most effective. Used according to directions it is not injurious to vegetation.

## For Out Door Spraying of Trees, Shrubs and Hardy Plants

**SCALINE**, an oil and sulphur composition—three in one—an insecticide, fungicide and scalicide combined, destroys San Jose, Oyster Shell and other scale, red spider, larva of the aphis and locust borer. Now is the time to spray to protect your trees and shrubs against the ravages of the various insect pests.

Get in the habit of using our products and you will use no other

For Sale by all Seedsmen

# Aphine Manufacturing Company

Manufacturers of Agricultural Chemicals

MADISON, N. J.



# Greenhouse Erected for the Franciscan Fathers

A T Paterson, New Justice and the thoroughly practical curved cave nouse for the Catholic Order of Franciscan Fathers. It is a well established fact that such institutions are careful, keen buyers. They are willing to pay the price, but everything they buy must be the very best for the price.

This cardinal principle, of theirs, of planning carefully and building enduringly dates back to the days of Ancient Rome.

That our construction was selected in this case, is most conclusive evidence of its superiority.

Send for our catalog see for yourself,

Hitchings and Company

NEW YORK, 1170 Broadway, BOSTON, 49 Federal Street.

PHILADELPHIA, 40 S. 15th Stort.

# BURNETT BROS'. Reliable Bulbs and Roots

FOR EARLY FORCING

# Hyacinths

Early French Roman Hyacinths

Pure White Roman Monster Bulbs \$1	1.00	\$6.50	\$60.00
Mammoth Bulbs, 14-15 ctm	.85	6.00	55.00
Selected Bulbs, 13-15 ctm	.75	5.00	45.00
Selected Bulbs, 12-15 ctm.	.60	4.50	40.00

## Freesia Purity

(Fischer's Strain)

Mammoth Bulbs. Doz. 75c., 100 \$4.50, 1000 \$40.00. Large Selected Bulbs. Doz. 60c., 100 \$4.00, 1000 \$35.00.

## Lilium Harrisii

Extra Size Bulbs. 7 to 9 inches	\$0.20	\$2.00	\$15.00
Mammoth Size Bulbs. 9 to 11 inches	50	4.00	30.00

# Lilium Longiflorum Formosum

Extra Large Bulbs.	9 to 10 inches	. \$0.25	\$2.50	\$20.00
Mammoth Bulbs. 10	0 to 11 inches	30	3.00	25.00

# Lilium Candidum

Extra Large Bulbs	\$0.15	\$1.50	\$10.00
Monster Bulbs	.20	2.00	15.00

# Polyanthus Narcissus

PAPER WHITE GRANDIFLORA.

Extra Large Bulbs	. \$0.30	\$2.00	\$18.00
Mammoth Bulbs	50	3.00	25.00

## Narcissus

Von Sion Single-Nosed Mammoth Bulbs\$0 " Double-Nosed, Extra Selected	).40	\$2.75	\$20.00
"Mother Bulbs"  Trumpet Major (French Grown)  Golden Spur (French Grown)	.35	2.25	30.00

Perennial Flower Seeds, New Stock, Just Arrived.

Send for Illustrated Bulb Catalogue, mailed free of charge. Persons doing so will have their names registered for our Illustrated Spring Catalogue, 1915.

# BURNETT BROTHERS, Seedsmen

98 CHAMBERS STREET, near BROADWAY

TELEPHONE, BARCLAY 6138

**NEW YORK** 

# 

# Grass Seed For Fall Sowing

#### LAWN GRASS SEED

BURNETT'S SPECIAL LAWN GRASS MIXTURE CRASS SEED FOR BANKS AND TERRACES
LAWN GRASS FOR SHADY PLACES AND UNDER TREES
GOLF LINKS GRASS MIXTURES CENTRAL PARK LAWN GRASS

#### BURNETT'S GRASS SEED MIXTURES

For Hay, Meadows and Permanent Pastures

BURNETT'S RECLEANED SEPARATE GRASSES, CLOVER AND MILLET

Prices subject to market changes. Special quotations on large quantities.

#### BURNETT BROS.' RELIABLE BULBS AND ROOTS

For Forcing and Outdoor Planting

#### RELIABLE FLOWER SEEDS

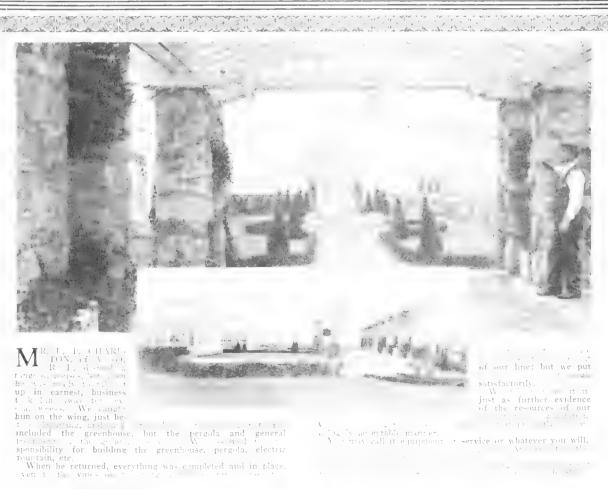
Suitable for Autumn Sowing

#### GARDEN TOOLS AND SUNDRIES

Send for Illustrated Bulb Catalogue, mailed free of charge. Persons doing so will have their names registered for our Illustrated Spring Catalogue, 1915.

# BURNETT BROTHERS, Seedsmen

98 CHAMBERS STREET, Between Broadway and Church Street, NEW YORK



#### SALES OFFICES

Philadelphia, Claviland, Franklin Bank Bldg. Swetland Bldg

lord & Burnham 6. FACTORIES IIVALITION N. Y. Des Plaines. III.

containing a list of

# Fall Bulbs, Strawberry Plants and Seasonable Seeds and Sundries

has been mailed to all gardeners. If not received drop us a postcard.



Border of Lilium Candidum (the hardy St. Joseph or Annunciation Lily).

This is the old-fashioned garden Lily and is perfectly hardy, blooming in the open ground in June. The many snow-white flowers, borne on a stem 3 to 4 feet high, make this Lily most effective. This variety should be planted in the fall, from the fact that it makes a winter growth. Stock from the north of France. 15 cts. each, \$1.50 per doz., \$12 per 100. Monster bulbs, 20 cts. each, \$2 per doz., \$16 per 100.

# ARTHUR T. BODDINGTON, Seedsman

342 West 14th Street, New York City

o walang and the

a amadaine a dilibidadicid — allaita dilibilla di

Ξ



A HIGHWAY OF PERENNIALS

### THE HIGHWAY TO PERENNIALS Leads straight to the PALISADES NURSERIES

HERE you will find all kinds and you can take your pick from the best that grow. Perennials add a feeling of permanency to your home surroundings. They change their plumage but not their face, and keep reflecting the seasons all the year around.

No grounds are really gardened without a big showing in perennials. We are headquarters for perennials and assure the widest latitude in choice as well as the most courteous promptitude in correspondence and service. Our motto-Maximum Quality at Minimum Cost. Write R.W. CLUCAS, Manager.

THE PALISADES NURSERY. Sparkill, N. Y.

# rawberry Plants

MERICUS, the leader of the A MERICUS, the reactions, fall-bearers, will give luscious, large sweet Strawberries, equal to June fruit, it you set pot-grown plants in July and early August.

**BIG, POT-GROWN PLANTS** 

\$1.50 per doz., \$10.00 per hundred, delivered SEND YOUR ORDER EARLY.

Ask for our Mid-Summer Catalog of Strawberries, Vegetable and Flower Seeds, Plants and Bulbs. Mailed free.

Weeber & Don, Seed Merchants, 114-L Chambers St., New York, N. Y.

On larger properties, nothing has been more notable than the tendency to plant

### Meehans' Mallow Marvels

in groups of a hundred or more of each of the several colors: securing in each a profusion of immense blooms, in glorious shades of red; or soft pinks or white.

Pink, \$35.00 per hundred White, \$35.00 per hundred Red, \$50.00 per hundred

Thomas Meehan & Sons Box 65 Germantown, Phila



POT GROWN STRAWBERRY PLANTS

STANDARD VARIETIES:

\$3.00 per hundred; \$25.00 per thousand.

EVERBEARING VARIETIES: Pan American and Superb

\$1.75 per doz.; \$10.00 per hundred.

### FIELD GROWN CARNATIONS

STANDARD VARIETIES:

\$1.75 per doz.; \$10.00 per hundred.

GROWERS AND DISTRIBUTORS OF PRIZE STRAINS, FLOWER AND VEGETABLE SEEDS, BULBS, ETC.

FALL CATALOGUE NOW READY

THOS. J. GREY COMPANY, Boston, Mass.

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

# KENNEDY & HUNTER **SEEDSMEN**

Pot Grown Strawberry Plants Now Ready

All Standard Varieties \$3.50 per 100

156 West 34th Street One block from Penna. Station New York

"ONLY THE BEST"



# DREER'S POT-GROWN TRAWBERRY PL

The best varieties, both new and old, and best methods of planting to raise a full crop of strawberries next year are fully particularized in

### Dreer's Mid-Summer Catalogue

Also Celery, Cabbage, and other vegetable plants. A select list of decorative plants, Palms, Ferns, etc.; Seeds of old-fashioned Hardy Perennials and other flowers for summer sowing. Seasonable Farm

Write today for a copy, FREE, and please mention this magazine.

HENRY A. DREER 714-716 CHESTNUT ST., PHILADELPHIA, PA.

# Thorburn's Bulbs

### To the Gardener:

X /E have a great deal to say to gardeners and beginning with this September issue will use a half page or more each month for the telling of "news" about our business which we believe will be of special interest.

Our Bulb Catalog is now going out and if you have not received your copy write and ask for it and also for our special prices to gardeners.

> You have heard a good deal about the trial grounds which are maintained by the more careful seed houses and much talked of by all. We show this month a little view in our trial grounds at Noroton, Conn. See photo.

### J. M. THORBURN & CO.

Established 1802

53 Barclay Street

New York



# Begonias

Fine, strong plants, ready for you to finish.

#### GLOIRE DE LORRAINE

3 inch pots, \$4.00 per dozen.

4-inch pots, for later delivery: 50c. each, 85 Ou per dozen.

5-inch pots, for later delivery: 75c. each, \$7.50 per dozen.

#### GLORY OF CINCINNATI

3-inch pots, \$5.00 per dozen.

4-inch pots, for later delivery: \$1.00 each, \$7.50 per dozen.

5-inch pots, for later delivery: \$1.50 each, \$12.00 per dozen.

6-inch pots, \$2.00 each, \$18.00 per dozen.

#### FLORENCE DAVENPORT

3-inch pots, \$7.50 per dozen.

4-inch pots, for later delivery: \$1.00 each,

\$10.00 per dozen. 5-inch pots, for later delivery: \$1.25 each, \$12.00 per dozen.

# AN PIERSON INC. CROMWELL CARDENS CROMWELL CONN

0/50/50/50/N 50/50/50/5

# Pot Grown Strawberry Plants

Pot grown Strawberry Plants if planted now will furnish a good crop of fine berries next season.

The plants we offer are all well grown, true to name and healthy stock.

AUGUST LUTHER. Extra early, very productive and g od size BEDERWOOD, One of the best

BRANDYWINE. Large solid-cii son turt, midseason. BUBACH. I. rge berry of dark

unds (son CHESAFEAKE. A very large

COMMONWEALTH P 1 da vored, large berry; late.
EXCELSIOR. Extra early and

hardy variety
GANDY. Large trialit glossy
crimson fruit, very Life

HUNN. The large to variety grown, late,

MARSHALL, Targe, dark crim-son color malsenson son color milseason NEW YORK, Color dark rel, into mayor, midseason,

NICH OHMER, Mammoth fruit, (1) progetive; midseas a company of the largest borries; very productive.

SENATOR DUNLAP, Fruit of cols ze, fine color; in dseason

SUCCESS. Sweet, mild flavor, large and long bearer.
WM. BELT. Very large from midseason to late.

Any of the above varieties sent by express. Doz. 75 cts., 25 for \$1.25, 50 for \$2.00, 100 for \$3.50.

For new varieties and full description see our Fall Catalogue. Mailed Free. Send a postal for it.

### W. E. MARSHALL & CO.

166 W. 23rd Street

**NEW YORK** 

N order to get room for smaller stock I will sell at reduced price a number of large evergreens including

## Koster's Blue Spruce, 6 to 10 ft. Abies Nordmonnia, Retinosporas, etc.

Some excellent shade, ornamental and weeping trees, flowering bushes and a large assortment of perennial

### ANTHON S. PETERSEN

Fifth Avenue Nurseries New Rochelle, N. Y.

Calaista ...... 2 coman a dionosca S

## ORCHIDS

**-Pondula**nal duodhoo kala anno kon kasaa, ala on kasaa ka

Freshly Imported

We have received and unpacked the following in fine condition: Cattleyas - Percivaliana, Gaskelliana, Dendrobiums—Formosum, Nobile, Speciosissima: Densiflorum, Schuitzii (novelty); Vandas—Coerulea, Batemannii, Imshootiana, Luzonica (novelty); Phalaenopsis—Amabilis, Schilleriana and Spothoglottis plicata. Many more to arrive.

Write for special list No. 55.

LAGER & HURRELL, Summit, N. J.

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55 5 lb. package making 150 gallons,

25 lb. package making 750 gallons, exp. extra 6.25

50 lb. package making 1,500 gallons, exp. extra 12.50
100 lb. package making 3,000 gallons,
exp. extra 20.00

Barrels from 250 to 300 lbs., 18c. per lb.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon. 1½ gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

# BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.

# JULIUS ROEHRS CO.

Nurservmen and Florists RUTHERFORD, N. J.

Visit our establishment and inspect our Greenhouses containing the finest products. Also see our large increased Nursery and view our splendid Evergreens, Trees and Shrubs.

## COMPETENT GARDENERS

I The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

**NEW YORK CITY** 

# MR. GARDENER:

JUST CONSIDER A MOMENT!

Sick Trees Never Cured Themselves Yet!

# AND THEY NEVER WILL!

Then Why Wait Longer? Time Is Precious.

CALL US IN

WE HAVE the KNOWLEDGE, the EXPERI-ENCE, the MEN, the TOOLS.

### JOHN T. WITHERS, Inc.

Landscape Architect and Forester

1 Montgomery St.

Jersey City, N. J.

# **BOBBINK & ATKINS**

recommunical . . i recomment part and an incommentation of the continued and an incommentation o

WORLD'S CHOICEST NURSERY AND GREENHOUSE PRODUCTS

AUTUMN PLANTING.

The Months of August and September are the Best Time to Plant Evergreens.

EVERGREENS, CONITERS AND PINES. We have more than 75 acres planted with attractive EVERGREENS. Our collection is conceeded to be the most con-plete and magnificent ever assembled in America. The varieties comprising same have been thoroughly tested and proved hardy. Our plants are dug with a ball of earth and burlapped previous to shuping. Before purchasing elsewhere intending purchasers should not fail to inspect our collection.

THE FOLLOWING PLANTS FOR OUTDOOR PLANTING, INTERIOR AND EXTERIOR DECORATIONS ARE AMONG OUR SPECIALTIES.

STRAWBERRIES.—Potted and field grown in all the leading varieties. We have many thousands of Strawberries and are in a position to fill orders of any size.

AUTUMN BULBS AND ROOTS,

—We grow and import quantities of Bulbs and Roots from all parts of the world.

PEONIES AND IRIS. - We have a complete collection of them ready for September delivery.

**ENGLISH IVY.**—We grow many thousands in trained forms and ordinary plants from two to eight feet tall.

HEDGE PLANTS. We grow a quantity of California Privet, Berberis and other Hedge plants.

HARDY OLD - FASHIONED PLANTS. Sampel agency of father

HARDY OLD - FASHIONED PLANTS, Several acres of our Nursery are exclusively devoted to their culture.

PALMS AND DECORATIVE PLANTS.—We have several acres of Greenhouses in which we grow Palms, Ferns and a large collection of Plants for Interior and Exterior decorations.

PLANT TUBS, WINDOW POLYES EMULISH CAPPEN

PLANT TUBS, WINDOW BOXES, ENGLISH GARDEN FURNITURE AND RUSTIC WORK,—We manufacture all shapes and sizes.

OUR NEW HYBRID GIANT-FLOWERING MARSHMALLOW.— Everybody should visit our Nursery and see this wonderful New Oldtashioned Flower now in bloom.

OUR ILLUSTRATED GENERAL CATALOG NO. 45 and AUTUMN BULB CATALOG describes our Products. Mailed upon request,

"We Plan and Plant Grounds and Gardens Everywhere."

NURSERYMEN, FLORISTS AND PLANTERS

RUTHERFORD, N. J.

### SPECIAL NOTICE

If our salesman has not called to see you, please notify us.

Pot-Grown

## STRAWBERRY PLANTS

All the New and Standard Varieties

Transplanted

### **CELERY PLANTS**

THE MACNIFF
HORTICULTURAL CO.
56 Vesey Street
NEW YORK

# FIELD GROWN CARNATIONS

# NOVELTIES and STANDARD KINDS

OUR stock out-doors has never been in better condition than it is this year, both as to size of plant and freedom of rust and other disease.

Send me a list of your wants and let me quote you my prices.

Matchless, the new white; Mrs. Cheney, the best new variegated; White Wonder, Northport, Mrs. C. E. Ward, Commodore, Brooklyn, etc., etc.

I will guarantee these plants.

### CHARLES H. TOTTY

**CHRYSANTHEMUMS** 

ROSES

**CARNATIONS** 

MADISON, N. J.

# The Contents---August, 1914

The Garden	112 113 114 115 118	The Persian Cyclamen as a Biennial Gloxinias from Seed The Midsummer Fallow By Karl Langenbeck Rattan' Palm (Illustrated)	133 133 133 134 138 138 139 140
The Dying Tree	114 115 118 119 121 122 123 124 125 125 128 128 129 129 130	Gardening in the Middle West  The Man Who Wins  George W. Vanderbilt, Pioneer in Forestry .  Lichens and Their Value	138 138 139 140 142 142 143 145 146 147 147 147 148 148

# STAIGREEN LAWN SEED

For Lawn Making few months in the year are considered as advisable as August or early September. While the proper preparation of the ground, fertilizing, rolling and watering is considered very essential, the mixture of grasses is a very important one and should be given considerable thought.

### 25-Pound versus 14-Pound LAWN SEED

Many low-price Grass Seed mixtures weigh only 14 pounds per bushel. This indicates either a good proportion of chaff or some of the real good varieties in the rough state, not properly cleansed so as to leave only the vital part and less of the chaff or shell.

In other words, so many less seeds to the quart or pound that will germinate and grow real grass.

### Why Not Buy the Re-cleaned Kind?

A mixture of grasses weighing 25 pounds per bushel, of high germination and purity, permanent in nature, the varieties carefully proportioned so that they will succeed one another in brightness of foliage, with the result that the lawn, even in its first year, will have a bright, rich green color from early spring until covered by snow.

POUND 40 cts.

-gorana annomogusano, mondala, il nomo er alla 1979, p. a. 1979 donnado dal diadelada e diadelada e diagrafia e

5 POUNDS \$1.75 25 POUNDS \$8.00 100 POUNDS \$30.00

One Pound will Sow a Plot 20 x 20 feet. Sow 80 Pounds to the Acre

Stumpp & Walter 6 30-32 BARCLAY ST. NEW YORK

# GARDENERS' CHRONICLE

### OF AMERICA

DEVOTED TO THE SCIENCE OF FLORICULTURE AND HORTICULTURE

ADOPTED AS THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

Vol. XVIII.

AUGUST, 1914.

No. 4.

# The Garden

By Andrew Marvell.\*

How vainly men themselves amaze, To win the palm, the oak, or bays: And their incessant labors see Crowned from some single herb, or tree, Whose short and narrow-verged shade Does prudently their toils upbraid; While all the flowers and trees do close, To weave the garlands of repose.

> Fair Quiet, have I found thee here, And Innocence, thy sister dear? Mistaken long, I sought you then In busy companies of men. Your sacred plants, if here below, Only among the plants will grow Society is all but rude To this delicious solitude.

> > No white nor red was ever seen So armorous as that lovely green. Fond lovers, cruel as their flame, Cut in these trees their mistress's name. Little, alas! they know or heed, How far these beauties her exceed! Fair trees! where'er your bark I wound, No name but your own be found.

When we have run our passion's heat, Love hither makes his best retreat. The gods, who mortal beauty chase, Still in a tree did end their race. Apollo hunted Daphne so, Only that she might laurel grow; And Pan did after Syrinx speed, Not as a nymph, but for a reed.

What wondrous life is this I lead! Ripe apples drop upon my head; The luscious clusters of the vine Upon my mouth do crush their wine; The nectarine and curious peach Into my hands themselves do reach; Stumbling on melons as I pass, Insnared with flowers, I fall on grass.

Meanwhile the mind from pleasure less Withdraws into its happiness—
The mind, that ocean where each kind Does straight its own resemblance find:
Yet it creates, transcending these,
Far other worlds and other seas;
Annihilating all that's made
To a green thought in a green shade.

Here at the fountain's sliding foot, Or at some fruit-trees's mossy root, Casting the body's vest aside, My soul into the boughs does glide: There like a bird it sits and sings, Then whets and claps its silver wings, And till prepared for longer flight, Waves in its plumes the various light.

Such was the happy garden state,
While man there walked without a mate;
After a place so pure and sweet,
What other help could yet be meet?
But 'twas beyond a mortal's share
To wander solitary there:
Two paradises are in one,
To live in paradise alone.

How well the skilful gardener drew Of flowers and herbs, this dial new! Where from above the milder sun Does through a fragrant zodiac run; And as it works, th' industrious bee Computes its time as well as we. How such sweet and wholesome hours Be reckoned, but with herbs and flowers.

<sup>\*</sup>An English poet and satirist, died in London, 1678.

# Gardens in and Around Boston

By W. N. Craig.

It is twenty-four years since the Society of American Florists last met in Boston. On that occasion the estates of H. H. Hunnewell, of Wellesley, and Francis B. Haves. of Lexington, were two of the most celebrated in the State. The visitors to the convention to the number of many hundreds were hospitably entertained at each estate, and no doubt not a few who will visit the Hub this year will remember James Comley, of the Hayes estate, and the genial and popular Frederick L. Harris, of the Hunnewell estate. The number of private estates has increased many-fold in the last quarter of a century and, while there will be no special trips to visit any of these on the present occasion, the owners and superintendents will be very glad to welcome all visitors from a distance who can spare the time to pay them a visit; especially welcome will be the members of the National Association of Gardeners, not yet very strong in the old Bay State, but likely to show a considerable growth as a result of the summer meeting of the N. A. G. in Boston.

In a few notes, hurriedly written, it is not possible to refer to more than a few of the prominent estates and



EAST VIEW IN RHODODENDRON SEASON, ROCK GARDEN, PROCTOR ESTATE, TOPFIELD; JAMES MARLBOROUGH, SUPERINTENDENT.

many of them not mentioned are worthy of a visit. I regret that it was not possible at short notice to secure more photographs of some of our best places.

At Wellesley, which is within a dozen miles of Boston, and easily reached either by Boston & Albany R. R. or by electric cars, is found one of the most charming towns in Massachusetts and here are located some beautiful private estates; the best known is the one aforementioned, now the residence of Walter Hunnewell, where T. D. Hatfield is in charge. The collection of specimen trees and shrubs found on this estate is very fine and quite extensive, conifers and rhododendrons being the special attractions. The noted Italian garden on the beautiful shores of Lake Waban has a country-wide fame, while in the greenhouses are excellent collections of orchids, stove and greenhouse plants. The estates of Mrs. Arthur Hunnewell, Frederick Coles, superintendent, and Henry S. Hunnewell, J. G. Duguid, superintendent, are also well worth a visit.

The North Shore of Massachusetts, sometimes named

the "Gold Coast" owing to the large number of wealthy Americans having residences there, is one of the most beautiful and popular summer resorts in the country. It it a serious rival now of Newport, Lenox and Bar Harbor, and judging by its state of development, it bids in the near future to take the lead even over these famed resorts. There are in Manchester, West Manchester, Pride's Crossing, Beverley Farms, Magnolia, Marblehead and other North Shore towns and villages a host of beautiful gardens. A few worthy of special mention are those of Judge W. H. Moore, Pride's Crossing, where Geo. Wyness presides; here the splendid lawns and rock gardens are features; W. S. Spaulding, Pride's Crossing; E. C. Swift, Mrs. Lester Leland, Manchester, where one of our most skilled gardeners, E. H. Wetterlow, is in charge; Mrs. Dudley L. Pickman, F. P. Fraziers, W. E. Endicott, of Danvers, and to which might be added many



AN INTERESTING NOOK ON THE ESTATE OF MR. BAYARD THAYER, SOUTH LANCASTER; WM. ANDERSON, SUPERINTENDENT.

more. The visiting ladies at the convention will be given a 70-mile ride over the North Shore and will be entertained at lunch to the number of three hundred by the North Shore Horticultural Society, which comprises within its ranks all the best gardeners and many of the employers in this renowned section. Frequent trains over the Boston & Maine R. R. may be had to North Shore points, the running time being from forty to seventy minutes.

At Topfield is to be found one of the largest and most varied estates in Massachusetts, that of Thomas E. Procter, where James Marlborough is superintendent.



POOL ON THE ESTATE OF MR. BAYARD THAYER, SO, LANCASTER.

On this immense estate is to be found one of the finest private arboretums in the world, rivaling in some respects even the famous Arnold Arboretum. A magnificent rock garden, skillfully built and planted is to be found here. In the greenhouses grapes and other indoor fruits are grown to a perfection rarely attained, pot fruits being given special attention and are splendidly done. An exhibition of one hundred and twenty-five varieties Caladiums from this estate was a feature at a show in Boston on August 8 and 9 last.

South Lancaster, Mass., contains several noted estates, the largest and best known is that of Bayard Thayer,



ENTRANCE TO THE ISTATE OF MRS. OLIVER AMES, NO. EASTON; H. COLE, SUPERINTENDENT.

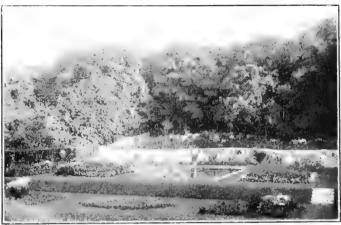
William Anderson, superintendent. There is an immense collection of trees and shrubs here, including quantities of nearly all of Wilson's Chinese introductions. In May a display of 50,000 tulips and large quantities of Narcissus are a great feature here. The nursery on this estate is larger than some commercial places and tens of thousands of Scotch Heathers, Kalmias and other plants are to be seen in various stages. There is also a fine range of greenhouses.

The estate of John E. Thayer, J. T. Clarke, superintendent, also at South Lancaster, is laid out with great taste, the naturalizing of bulb and other plants being done charmingly. Other estates in the community are those of E. V. R. Thayer, where Frederick Abraham has charge, and Mrs. Nathaniel Thayer.

North Easton, Mass., some twenty-two miles from Boston on the N. Y., N. H. and H. R. R. contains several interesting estates. Those most worthy of a visit are the

estates of Mrs. Oliver Ames, in charge of Harry Cole; John S. Ames, William Swan, superintendent; Winthrop Ames, Daniel Whyte, superintendent; Oliver Ames, Edward Parker, superintendent; Miss M. S. Ames, Andrew Masson, superintendent; and F. L. Ames, William Grant, superintendent.

Brookline, is a very near suburb of Boston, noted as being the wealthiest town in America; its assessable valuation being over \$135,000,000. Its various estates can all be reached by electric cars from Park street subway station, although some of the larger ones are a distance from the cars. The estate of Prof. C. S. Sargent, "Holm Lea" needs no introduction. The two hundred or more acres are planted with exquisite taste. There are many fine



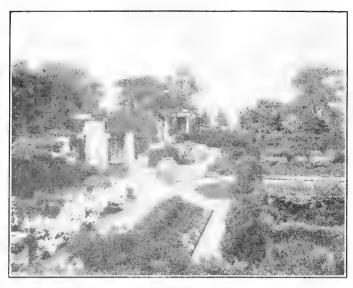
A FORMAL TERRACE GARDEN ON ESTATE OF MR. WINTHROP AMES, NO. EASTON: DANIEL WHYTE, SUPERINTENDENT.

specimen trees and shrubs here, not a few extremely rare and unique. Wilson's new plants are seen on all hands. Charles Sander, the skillful and popular superintendent, is one of the best craftsmen we have in America. Anyone doubting this statement should see how he raises tens of thousands of difficult subjects from seeds, or grafts; should view his grand collection of seedling Moutan peonies, or his wonderful specimens of Azelea Indica, Trachelospermum jesminoides, and standard wistarias; also his wonderful seedlings of Imantophyllums and Nerines.

At Larz Anderson's, over which Duncan Finlayson presides, the Italian garden is the most striking feature; this has been illustrated in many of the gardening and



A LAKE SCINE ON ISTAIT OF MR. JOHN S. AMES, NO. FASTON: WM. ST., AN. HEAD GARDINER



VIEW OF ITALLYN GARDLN ON ESTATE OF MR. LAPZ ANDER SON, BROOKLINE, DUNCAN FINLAYSEN, SUPERINTENDENT.

other magazines. In the greenhouses, divisions are devoted to grapes, peaches, orchids, roses, carnations and other plants.

At Mrs. C. G. Welds, W. C. Rust, superintendent, extensive changes have recently been made, the whole place practically being replanted and fine new greenhouses built.

Mrs. John L. Gardener's estate has for years been well known. The Italian garden is a leading feature; the orchids and other greenhouse plants are well done by William Thatcher, who is in charge.

At E. D. Brandegec's, "Faulkner Farm" a pond two



VIEW OF ITALIAN GARDEN ON ESTATE OF MR. E. D. BRANDEGEE, BROOKLINE; W. N. CRAIG, SUPERINTENDENT.

acres in extent is being excavated and will soon be ready for flooding. New features soon to be added are a rock garden, rose garden, walled-in garden, swimming pool and up-to-date farm buildings. W. N. Craig has charge here.

In Chestnut Hill, which adjoins Brookline, the estate of Ernest B. Dana, where Donald Mc Kenzie is the horticultural genius, contains the finest collection of Orchids in America. At E. S. Webster's, William Downs, superintendent, there is a fine range of U-Bar greenhouses and they always contain seedlings of interest to visitors.

There are numerous other private estates of note in Newton, Weston, Westwood, Framingham, Hamilton,

Wenham, Hingham, Cohasset, Plymouth, etc., but space will not permit of any reference to them. Estates in Massachusetts usually average smaller in area than similar ones in New York, but no state in the Union is more keenly interested in horticulture than Massachusetts, and this love of plants and flowers pervades all classes. Members of the N. A. G. gathering in Boston on August 19 are sure to find something to interest them on all the places they may have time to visit.

### THE MUTATION THEORY A MYTH.

During the past decade, no phase of botany has received greater attention than the mutation theory of DeVries. In brief, this theory accounts for the origin of new species by the occurrence of sudden leaps or mutations from existing species, in contradistinction to the Darwinian theory which assumes a slower and more gradual variation from existing forms. Both theories are based on the idea that plants vary from the normal and differ chiefly in the length and number of the jumps or mutations required to make the new form a species. DeVries stands for a single long jump, Darwin for a succession of shorter ones. Much plausibility has been given the theory advocated by DeVries by his production of new forms from that form of evening primrose known as Oenothera Lamarckiana, but Prof. E. C. Jeffrey writing recently in Science claims that O. Lamarckiana is a hybrid. The great trouble is to decide what are and what are not hybrids. The old test for a hybrid was its sterility. If completely sterile it was considered as certainly a hybrid. Hybrids, however, are now known to be of various grades of fertility. A great number of crosses between different species have been made and as the plants crossed differ in the degree of relationship, it follows that various grades of sterility may exist. Jeffrey gives it as his opinion that hybrids may always be identified by the fact that the pollen grains are more or less abortive and infertile. Judged by this test, the plant with which DeVries made most of his experiments is a hybrid and Jeffrey insists that in consequence the mutation theory has no standing in court and should be relegated to the realm of myths. It may be said, how-ever, regardless of the merits of the new theory, that the discussion of the subject has had a tremendous influence on the production of new forms by breeders and this much at least must be set down to its credit.-American Botanist.

### APPLICATION FOR MEMBERSHIP

### National Association of Gardeners

I hereby apply for	Membership in your	Association: —
Name in full		
Occupation		
Address		
Date	_	
Reference		

Forward Application to M. C. EBEL. Secretary, Madison. N. J., with dues, which are \$2.00 annually, including subscription to the official organ of the Association.

# Opportunities in Floriculture

By Arno H. Nehrling.

The development of floriculture in the United States dates back to the eighteenth century. About that time the wealthier citizens of Boston, Philadelphia and New York began to cultivate large gardens around their residences, usually arranged in terraces after the English style of that period. The revolutionary war stopped further progress in floriculture or gardening until the country became more settled under the new government. The actual development began from that time on and the progress has been remarkable. In no phase of horticulture have the advances been as great as in floriculture.

The growth of the cut-flower industry the past twentyfive years has been phenomenal. The past decade has also witnessed great advances in the production of ornamental plants, in fact the growing of flowers and plants under glass, which was originally a luxury of the wealthy. has developed into a profession which is one of the most important phases of horticultural work. In the earlier days of the cut flower industry, European methods of culture were in vogue. The few roses and carnations that were grown, were grown mostly in pots, the greenhouses of those days being very primitive. In the character of the greenhouses devoted to the cultivation of cut-flowers and plants there has also been a wonderful advancement the past twenty-five years. Twenty-five years ago 11-foot houses, covered with sash and heated by hot air flues were considered quite the thing. Then came houses 18 to 20 feet in width, then the house from 30 to 60 feet in width, and today we find a number of houses from 100 to 172 feet in width and 1,000 feet long. The methods of construction and heating have, of course, also been improved. And in speaking of advancement we must not overlook the wonderful development that has occurred in our principal commercial crops. Carnations for instance have been increased in size from the size of a half dollar to approximately four inches. One of the most phenomenal improvements that have been made in any flower has been made in the chrysanthemum, which has been developed to such an extent that one who knew it twenty-five or thirty years ago would not recognize the immense blooms

According to the 1910 census reports there were 11,614 establishments with a combined glass area of 105,165,730 square feet, or more than 3,217 acres, in the United States. This does not include the area covered with hotbeds and cold frames which at that time amounted to approximately 150 acres or 9,489,546 square feet. These census figures give Illinois the largest glass area, namely, 14,380,927 square feet, or over 330 acres. New York comes second, with over 13,000,000 square feet; Pennsylvania third. with over 12,000,000 square feet; New Jersey and Massachusetts follow in the order named. This acreage seems rather small when we compare it with some of our farms. One must keep in mind, however, that returns from a farm ranging from \$50 to \$150 mean big profits. On the other hand an acre under glass must bring from \$15,000 to \$20,000 to make the investment a profitable These returns are necessary, of course, not only because of the larger amount of capital invested, but also to the much greater cost of operation. The value of the output for 1910 was estimated to be at least \$40,000,000. In value of the crop, roses are at the head of the list with carnations second and the violet third. The latter crop alone was valued at a little over one million dollars last

In commercial floriculture the East, particularly New England, has made wonderful progress.

Boston has always been a leader in floricultural work, and no institutions in the country have done as much as the Massachusetts Horticultural Society and the Boston Gardeners' and Florists' Club in promoting horticultural interests. Along scientific lines we must always keep in mind the work of C. S. Sargent, who has given Boston the finest Aboretum in the world, E. H. Wilson, who has collected materials in regions hitherto unknown, and Jackson Dawson, that eminent plant propagator.

The concentration of wealth in New York and Boston insures for the eastern grower the highest prices for his products. It also affords the private gardener the largest

opportunity for the pursuit of his profession.

The development in the West in the past twenty-five vears has been equally as wonderful. In fact the Middle Western grower has over-shadowed his Eastern brother in the amount of capital invested, in modern equipment, and cultural methods. At the present time Chicago is one of the greatest flower markets in the country and it is the principal distributing center of the Middle West. From there cutflowers are shipped in great quantities to all the neighboring states, and regular shipments are made to New Orleans, Jacksonville, Florida and Denver, Colorado. The choicest flowers sold in the flower shops of New Orleans during the winter months come from Chicago. And yet this industry can be traced back to 1878, when J. C. Vaughan started a small cutflower business. Since that time the business has developed to monster proportions and according to a prominent floriculturist of that section is still in its infancy and destined to undergostill greater development and more radical changes. Near Chicago are found the two largest glass areas in the world. One of these known as Poehlman Brothers' establishment, originated in 1885 when Adolph Poehlman started to grow flowers in a small way at Morton Grove, Illinois. In 1889, John and August Poehlman joined their brother and the firm entered in the cutflower market in 1894 under its present name. The business has proven highly successful and the little range of glass at Morton Grove, about 20,000 feet in all, has reached the enormous total of over 2,000,000 feet. Peter Reinberg is said to have the second largest glass area, about 2,000,000 feet in all. At one time, over a million feet alone were devoted to the culture of the American Beauty Rose. But the development of the industry has not ceased at Chicago or the Rocky mountains. It is noticeably clear to the Pacific coast, California having some of the most modern establishments in the country

Much has been done to further the floricultural interests by progressive horticultural societies. There are between 400 and 500 societies in existence in the United States at the present time, not including the bona fide trade organizations. In nearly every large city is to be found a Florists' Club organized for both business and social purposes. Many states have State Florists' Associations, working along some particular line, always exchanging new ideas and seeking information. These ideas are somewhat different from those of the old-time gardeners who kept their methods secret, often working behind locked doors. The most important organization, however, is the Society of American Florists and Ornamental Horticulturists, a national society working under a charter granted by the federal government. Similar organizations are the National Association of Gardeners, the American Carnation Society, the American Rose Society, the Chrysanthemum society of America, the Americans Sweet Pea Society, and the American Gladiolus Society. Each one of these societies is working along a different line, all have the same end in view, namely, the betterment of the industry or profession.

Mr. W. J. Stewart, in a recent editorial, says: "The splendid structures which shelter the products of the commercial grower of today, as well as those of his wealthy amateur neighbor, represent years of close investigation and study of the myriad problems of the science of light and heat and their practical application to the specific demands of a rapidly advancing business. One of the best evidences of the stable character and dignity which the floral industry has attained is the enterprise and confidence displayed and the capital being invested in greenhouse construction. It would seem almost impossible to further improve, but no doubt the next few years will see continued advancement, for there is every reason to be-Jieve that the plant, flower, and fruit forcing industry is yet only in its infancy and no business offers fairer inducements for the employment of capital and brains.

The most recent figures show that there are 456 cities with a total acreage of 75,542 devoted to parks in this country with a total valuation of \$528,229,000. There are also over 30 botanical gardens in this country, all having glass houses for their botanical collections.

Looking back at the progress that has been made during the last twenty-five years, and the improvements that have been made even during the last five years, one can only wonder at what the next twenty-five years have in store for us. We have not reached the end and we have reason to expect as much advancement in the future as has occurred in the past.

Floriculture is becoming a profession based on the application of scientific knowledge. It is no longer in an experimental state; it has assumed immense proportions, and is upon a safe basis. Granting then, that flowers are no longer considered luxuries, and knowing that America leads in the production of cut flowers and that the number of conservatories in public parks is increasing, the question naturally arises "What are the opportunities for scientifically trained men in floricultural work?"

These opportunities or openings for trained men may be classed under four distinct headings, namely, commercial work, private estate work, park and cemetery work, and instructional and experimental work. Before discussing the individual lines of work let me add that the wonderful development along lines of plant culture in this country are due largely to the untiring efforts displayed by our European trained men. We owe much to men who received their training at the Kew Gardens under the old apprentice system. Germany, France and Sweden have also sent us excellent men, and these men display a thoroughness and a knowledge of plants at which the average American gardener marvels. But we have reached a critical stage in the development, the gardeners of the older schools are becoming fewer, and men trained and acquainted with conditions in this country are in greater demand.

Let me emphasize the fact that a thorough knowledge of the subjects involved is imperative. This knowledge may be obtained either by working under the direction of a trained man according to the European system, or through the courses now offered by our agricultural colleges. The latter way seems to have many advantages because the conditions in this country are somewhat different, then, too, with the changes in our systems of education along all lines of agriculture, new ideas have been adopted which are proving to be highly successful. Floricultural education as a separate course in the college curriculum is then of comparatively recent origin in America. It is by no means perfect, and it will take years

to develop a course which will approach the system under which our successful gardener of the present-day received his training. To the son of a commercial florist or the son of a gardener the present system can offer little of value along practical lines. Such a man can get far better practical training on his home place, but it is logical to suppose that to the florist's son who expects to follow his father's profession, the training in floriculture is as valuable as an agricultural training would be for the man who intends to return to the farm. The practical courses are primarily planned for those students who have never worked under glass. These men cannot get too much The time is coming when every student practical work. will be required to spend a year in an up-to-date commercial establishment or private place, before he will be graduated from a floricultural course. Even now, we always urge our students to find employment on a commercial or private place during the summer months in order to gain practical knowledge. The various courses offered at the Massachusetts Agricultural College at the present time, cover a period of four years. Besides the floricultural subjects of which every florist should have a working knowledge, such subjects which broaden the student and are necessary for a successful career are included in the course. The lectures are designed to cover the theory, while the laboratory work consists of practical work in the greenhouses and gardens, and is designed to give the student a working knowledge of the best methods now in use. The object of the course then is to give instruction in those branches which best fit men and women for the floricultural work and for life.

One must keep in mind, however, that in choosing this line of work it means more than just watching and waiting developments. To my knowledge there is no line of work where the duties are more exacting, or where the pleasures of development are greater.

It is a great privilege to any one to work for the common uplift of humanity and there is no greater opportunity, than to encourage on every occasion that may present itself the purpose of interesting some one, child or man, in our flowers, trees and shrubs, or in any of God's great creations.

"Plant flowers in the Soul's front yard, Set out new shade and blossom trees, And let the Soul once frozen hard, Sprout crocuses of new ideas."

#### THE DYING TREE.

By Walt Mason.

Ah! it is saddening to see a beautiful and stately tree in process of decay; it took long years to reach its height, and then there fell a deadly blight that ate its heart away. It seems to know it's in the soup, for all its leaves and branches droop, 'tis a despairing thing; and in the zephyr or the gale it seems to moan and sigh and wail, when it should dance and sing. There's nothing nobler than a tree, there's naught that more appeals to me, and, oh! it makes me hot to think such stately things must die because some derned old worm or fly has given it dry rot. And in our towns a million trees are dying of some punk disease imparted in that way; great elms that pleased our pas and mas are crumbling to the ground because such pests we do not slay. A little hustling out of doors might save the threatened sycamores, the locusts and the elms; so let us gird our loins today and spray our friends, the trees, and slay the worm that overwhelms. If you would sit supinely by and see a splendid shade tree die and never lift a hand, if you would raise no doleful sound when trees are dying all around, you surely should be canned.

# History of the Bureau of Plant Industry

United States Department of Agriculture.

It seems fitting at this time, as Dr. Beverly T. Galloway enters his position as dean of the New York State College of Agriculture, to review his long association with the United States Department of Agriculture, which he has just severed to engage in his new field of endeavor. Rising from the ranks until he became chief of the Bureau of Plant Industry, which position he vacated a little more than a year ago, to accept that of Assistant Secretary of Agriculture, Dr. Galloway has accomplished much for horticulture and floriculture in scientific research work. It is said of him that he was one of the first men in this country to realize the importance of pathological and physiological studies of plants.

In announcing his resignation as Assistant Secretary of Agriculture, a department bulletin says: "Dr. Galloway goes to his new position with an experience and an appreciation of agricultural problems that justifies the belief that Cornell University will continue the really wonderful progress it has made in agricultural science during the

past quarter of a century."

When Dr. Galloway came into the Department of Agriculture twenty-seven years ago he was greatly interested in the horticultural work, especially the intensive lines, as he had been for several years connected with floricultural work conducted by the Agricultural College of the University of Missouri. He had charge of the greenhouses for several years, and as these greenhouses were conducted on purely commercial lines, he took a deep interest in all of the problems confronting florists, problems of greenhouse construction and greenhouse management, and problems connected with the propagation of bedding plants and special crops, including roses, carnations and violets.

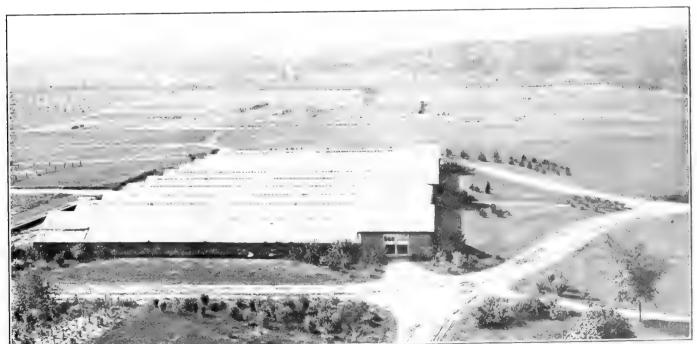
Upon coming to Washington his first work was in the field of plant diseases, especially those affecting fruit crops, such as grapes, pears, apples and other orchard fruits. The first successful treatment of the grape for black rot was made in 1888 at Vineland, N. J., under his

direction. The same year he was successful in preventing for the first time the serious disease of pears known as leaf blight. The next year the grape work was extended, as was also the work on leaf blight, in so far as affecting both the orchard trees and nursery stock. A special effort was put forth to assist nurserymen in the matter of protecting their stocks against diseases. Mildew affecting apple stocks, leaf blight affecting pear stocks, and various other maladies, which for years had greatly troubled nurserymen, were one by one successfully controlled.

In all this work it was necessary to develop special fungicides, and it was also pressingly necessary to develop apparatus with which to apply the fungicides. His department was the first to design and place on the market the American knapsack form of sprayer. This sprayer had been used in foreign countries, but no American type had been designed and placed on the market. The various forms used today are based largely on the earlier machines designed by the Section of Vegetable

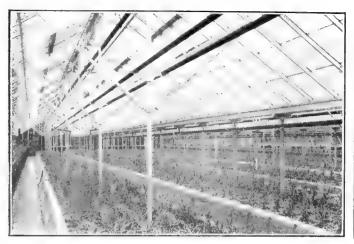
Pathology.

About 1890, in association with Mr. P. H. Dorsett, one of the assistants, he began some special work in the improvement of lettuce. They carried on this work for two or three years and published numerous papers on lettuce culture, especially as grown under glass. As a direct result of this work they were successful a few years later, through the aid of Mr. George W. Oliver, in actually producing several new types of lettuce by hybridization. Dr. Galloway regards this as one of the most interesting pieces of work with which it has been his pleasure to be connected. The work on lettuce, extending over a number of years, had very clearly indicated to him the need for a special type of lettuce for the Eastern grower and Eastern markets. There were no types that exactly met the prevailing conditions. They tested practically every forcing lettuce offered in this country and in foreign countries, and out of this testing work it was decided that



PART OF EXPERIMENTAL GROUNDS AND GREENHOUSES, BUREAU OF PLANT INDUSTRY, LOCATED AT ARLINGTON AND GREEN-HOUSES DEVOTED LARGELY TO PROBLEMS CONNECTED WITH FLORICULTURE AND VEGETABLE CULTURE UNDER GLASS.

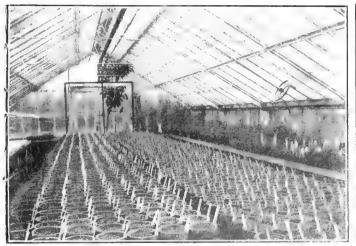
if a combination of two forms could be secured, it would published some important work in the improvement of approximate what was wanted in the way of an ideal the violet through definite selection effort. In connection lettuce for culture under glass. Mr. Oliver made this with this work and directly as an outcome of it developed



CARNATION CULTURE, ILISTING OF NEW VARIETIES AND BREEDING WORK.



ROSE CULTURE, HISTING OF NEW VARIETIES AND BREEDING



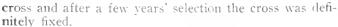
BREEDING WORK IN THE IMPROVEMENT OF GRASSLS



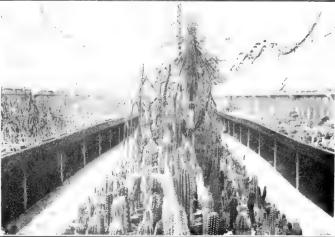
BREEDING WORK IN THE IMPROVEMENT OF COWPEAS.



ONE OF THE PLANT HOSPITALS CONNECTED WITH THE BUREAU OF PLANT INDUSTRY.



Later the work led into the field of violet culture, which was continued for five or six years and which resulted in clearing up and publishing an account of some of the most troublesome diseases of the violet, which hitherto had remained more or less of a mystery. There was also



PORTION OF HOUSE DEVOTED TO CULTURAL WORK ON DRY-LAND ORNAMENTALS.

the practice of using cyanide gas under glass. Cyanide gas had been used out of doors, more especially in California, but had not been applied to plants under glass except in a limited way. Experiments were made with a few violet plants at first and gradually the scope of the work widened until entire houses were successfully fumigated.

Associated with this work some other important lines were undertaken as affecting crops under glass by Mr. Albert F. Woods, also an assistant in the Division of Vegetable Pathology. Mr. Woods conducted some very important studies of lily diseases, and his studies of stigmanose, showing the relation of insects and cultural methods to diseases, cleared up a number of difficulties and made it practicable to control some of the more serious troubles confronting the carnation grower.

The work of the Division of Vegetable Pathology had developed at this time into a number of important fields, including the diseases affecting shade and ornamental trees, diseases affecting greenhouse crops, diseases affecting truck crops, and so forth. In 1901, upon the death of William Saunders, superintendent of gardens and grounds of the Department of Agriculture, the gardens and grounds were turned over to Dr. Galloway. This was the beginning of the organization of the Bureau of Plant Industry, coincident with the organization of several co-ordinate branches in the department. In 1902 the bureau was definitely authorized by Congress, and into this bureau was brought practically all of the plant work of the department, except that having to do with the forests.

Some of the most important developments that may be mentioned in connection with the growth of the Bureau of Plant Industry have had to do with proper educational efforts in the matter of pure seeds. The Seed Laboratory of the bureau has done most excellent service along this line. While its efforts have been to a considerable extent confined to cereal and forage crop seeds, a vast amount of work has been done on vegetable seeds, flower seeds, etc.

Ever since the Bureau of Plant Industry has been established it has been responsible for the securing, packeting and distribution of the so-called Congressional seeds. The Bureau of Plant Industry has never sanctioned this work, but has endeavored to conduct it in the most business-like way, because Congress in its wisdom has seen fit to authorize it. It has from time to time recommended and submitted definite and specific plans for changing the work, and out of these plans have developed numerous interesting and valuable adjuncts to the distribution. The work is especially designed for aiding the school-garden effort as conducted by Professor Corbett. Out of this work has also grown the very important foreign seed and plant investigations, already referred to. Furthermore, out of it has come the work it is now carrying on, having



PORTION OF THE FIELD STATION OF THE BUREAU OF PLANT INDUSTRY, CHICO, CALIFORNIA. GLASS HOUSE AND PROPAGATING SHEDS NOT SHOWN.

Early in the organization of the bureau the important field of plant introduction developed through the efforts of David G. Fairchild, who still remains in charge of this work. The world has been pretty well searched for new and rare ornamentals and other plants, and some of these are already making their way into horticultural prominence and others are likely to do so.

The breeding work of the department, especially that having to do with the improvement of fruits and ornamental trees, greenhouse crops, etc., has been continued so that the department and the Bureau of Plant Industry are now well equipped with up-to-date greenhouses for experimental work of all kinds. In this connection should be mentioned the valuable work conducted by Prof. L. C. Corbett, who for a number of years was in charge of the Arlington Experimental Farm. On this farm there is now a well-equipped establishment for the working out of many of the problems affecting American floriculture. The farm is well stocked with excellent material in the way of experimental orchards, vineyards, etc. It is on this farm also that Mr. W. W. Tracy conducted his important work in vegetable testing.

for its object the determination whether it is practicable to grow our own Dutch bulbs. The bulb farm at Bellingham, Washington, is making good progress along these lines.

Largely through the efforts of Dr. Galloway the department has now five well-organized, well-equipped establishments where it is conducting numerous important lines of work affecting horticulture and floriculture. On the grounds of the department proper, which consist of about 40 acres, it is now equipped with approximately 64,000 square feet of glass. In these houses it is conducting some of its most important work in the breeding and propagation of new and rare plants, experimental work in the feeding of floricultural crops, including the rose, the carnation and the chrysanthemum, the development of plants and the carrying on of an annual exhibit of chrysanthemums, largely intended for educational purposes. Several houses are also devoted to studies of the diseases affecting crops under glass. Other houses are devoted to the study of tropical and sub-tropical plants, others to the testing and fruiting of some of the tropical crops adapted to the United States, including the mango,

the banana, the orange, etc., and still others to plant quarantine work.

On the Arlington Experimental Farm, located about six or seven miles from Washington, is the second important horticultural plant, including about 24,000 square feet of glass. These houses are devoted to experimental work in the production of carnations and roses, the winter forcing of vegetables, etc.

At Yarrow, Md., nine miles north of Washington, is another well-equipped establishment designed for the care of the new and rare plants being brought in by the Office of Foreign Seed and Plant Introduction conducted by Mr. Fairchild. There are several greenhouses at this plant which are used for the propagation and testing of the new and rare shrubs, ornamental trees, etc., brought in from all over the world. There are also forty or fifty acres devoted to outside cultural work with ornamentals and other plants.

At Miami, Fla., there is a garden devoted especially to semi-tropical material. At this garden are propagated and distributed plants especially adapted to the southern United States. This garden will soon be greatly enlarged and is now well equipped with sheds and glass.

At Chico, Cal., is located the Chico Plant Introduction Field Station, consisting of about sixty or seventy-five acres of land, well equipped with greenhouses especially designed for the testing and rapid propagation of materials brought in from foreign countries in the way of shrubs, trees, and ornamentals of various kinds. The climate and soil at Chico are specially adapted to rapid propagation. While most of the crop production must be carried on under irrigation, the climate is so admirable and the soil so rich and strong that nearly all types of plants, whether suitable for the northern portion of the country or the southern portion, thrive well there. It has proved an ideal place for the propagation of many valuable things brought in through the Office of Foreign Seed and Plant Introduction.

#### SUCCESSFUL MUSHROOM CULTURE.

A crop that requires years of study and experience before the grower can be assured of a regular yield is mushrooms. The culture of mushrooms is somewhat uncertain from start to finish; in spite of all precautions

the crop may fall away below expectations.

Writing on the subject of mushroom culture, B. C. Blanchard of Canadian Horticulturist, says it is believed that where most growers fail is in the preparation of the manure. The equipment required is not expensive, any cellar will do that has a dry hard bottom. Mushrooms require darkness, but the few windows in the ordinary cellar need not be darkened. The bottom may be clay, gravel or concrete. If the clay is not dry it is best to concrete it. No heat is used in the cellars. A mushroom house should be as low as possible, convenience in working being a consideration.

Speaking of the successful methods used in mushroom growing, Mr. Blanchard says, the manure is treated for several months before it is put into the cellars. Only the very best horse manure is used. This is turned every day in the open for ten days, and the long straw all taken out. It is then turned every other day for a week. After that it is piled in ridges. Three weeks in all should put the manure in good shape. When ready a handful of the manure squeezed tightly should become

a solid ball, firm to the touch.

· For the winter crop the best time to prepare the manure is August. Although any time between April and the last of August will do. The manure is placed right on the clay or concrete in successive layers and tramped

solid till it is nine inches deep. The temperature will sometimes rise to one hundred and thirty degrees in two or three days, but when it falls to eighty-five degrees the

spawn should be planted.

Breaking the ordinary bricks of spawn into sixteen pieces is preferred. These are planted an inch below the surface of the manure, eight inches apart each way. The manure is tramped down solid and left for a week. After that a coating of rich loamy soil is applied, two inches deep, and pounded down till it is just one inch thick.

No attention need now be given to the beds for six weeks, when the mushrooms will begin to show. The first application of water should now be given, and the beds thoroughly soaked. They should require no more water until the bulk of the crop is off. When the crop begins to die away, another good watering will do till the crop is exhausted. A mushroom bed will usually crop from ten to sixteen weeks; twenty weeks is exceptional. Under good conditions a bed will yield from one to one and a half pounds to the square foot.

From seven to eight weeks after sowing the spawn the mushrooms will begin to lift. If sown in August they may run on till late in March. The dead manure is splendid for compost. About fifteen two-horse loads is sufficient for twelve hundred square feet of bed. The temperature of a mushroom house to give best quality should not fall below fifty-three degrees and not rise

above sixty-five degrees.

It is possible to take off two crops of mushrooms in one year, if a new lot of manure is put in as soon as the old is taken out. The old bed can be renovated without taking out the manure by spreading one and a half inches of dry cow manure and soil on top, tramping it well, and then adding one half inch of soil. This course is advisable only when one cannot wait and properly prepare the horse manure for the coming crop. Next to preparing the manure, the watering is most important. The two applications mentioned should be sufficient; too much water will kill the spawn.

#### SUNDAY WORK IN THE GARDEN.

It may seem like trival legislation to deliberate upon the question whether a man may lawfully work in his own garden on Sunday, but it is one that affects a great many persons and families, and we are glad that the House has taken it up and so far as it can has decided in the affirmative. Working in the garden is a healthful occupation for both body and mind. There are hundreds of men who have no other time in which to cultivate that small patch of real estate which means so much of comfort and contentment for rural homes. Men who are habitually industrious are not going to observe the Sabbath like an Eastern idol by sitting down and doing nothing. There is no better safety valve than a garden. It awakens a wholesome interest in the mind of the man whom it well serves, provided he can as well first serve it. There are doubtless many who, if offered their choice, would rather take a hundred-mile automobile ride on Sunday than hoe potatoes, but if they cannot do the former and are willing to compromise on the latter, the privilege should not be denied them. There is no better practical Christianity than that of the good old minister who said to his Sunday congregation: "Brethren, it looks like rain. I propose that we close this service and go out and get in Widow Scott's hay." If there were more gardens to occupy the time and appeal to the interest of men of enforced leisure, there would be much less business for the local courts Monday morning.—Boston Transcript.

# The Development of Boston's Park System

Boston's Park System was virtually established in the year 1875, through the appointment by the Mayor, under authority by the State Legislature, of a board of three

commissioners to serve without pay.

During the ensuing year plans were evolved for the establishment of a general system of parks and parkways surrounding the city. In the development of these plans the Commission obtained the advice of Frederick Law Olmsted, whose experience and success in similar undertakings in other cities made him an authority throughout

The original plans submitted called for the taking and improvement of about 1,100 acres at an estimated cost of \$4,000,000 for the purchase of land and \$1,000,000 for

improvement of same.

This general scheme has been adhered to, with minor exceptions, although considerable additions were made

later as the scheme developed.

The main features included the building of an embankment along Charles River, the connecting of Back Bay park lands with Boston Common and Public Garden by means of Commonwealth avenue, at that time a public boulevard; the development of land bordering Muddy River and Jamaica Pond, a beautiful sheet of water of about fifty acres situated in an extensive plain with a range of high hills on three sides, and the acquisition of an extensive tract of territory on high land in West Roxbury lying between the two valleys in which are the Providence Division and Old Colony Division of the New York and New England Railroad. This also included the taking of land about the Bussey Farm which had already been set apart by Harward University for Arnold Arboretum.

Next in importance was Marine Park at City Point, South Boston, between the main harbor and Dorchester Bay

The development of each division was carried with special reference to its surroundings and future uses.

The Back Bay Fens first laid out with the salt marsh style of landscape, while charming in its way, has of late years, through the damming of Charles River, changed is character from that of a salt water creek, cleansed by the ebb and flow of the tide, to a fresh water basin at a stationary level except when raised by heavy freshets. Sanitary reasons compelled therefore, the filling of the marshes and when properly loamed and planted we will have the unusual spectacle of a park whose entire aspect and design has been changed in the course of a comparatively few years.

The North Meadow has already been given the final touches and was selected for the site of the Convention Garden at the annual meeting of the Society of American Florists for 1914. It is intended, however, that the rest of the area of this park when completed for the second time, will be devoted to sports of various kinds, and although the change meets with opposition from many quarters, it will have many advantages as the surrounding property is being rapidly acquired for educational

institutions.

The Fen is connected with Olmsted Park by a narrow strip of land, called the Riverway. This area was developed in conjunction with the adjacent town of Brookline but it was planned as a unit and is a remarkable specimen of landscape work.

Olmsted Park contains three beautiful sheets of water. Jamaica, Wards and Leverett Ponds. The shores of these ponds are planted with rare aquatics and semi-aquatics, and on the steep slopes are banked rhododendrons, azaleas and mountain laurel.

The Arboretum, now famous all over the world, for its rare collection of trees and shrubs, contains about three hundred and fifty acres, and the work it is doing in collecting specimens of new and rare plants and investigating into their usefulness is of inestimable value to horticulture. There is a divided responsibility in the care and maintenance of this park as the planting spaces are cared for by Harvard University and the roads, walks, drains and material things are under the charge of the Park Department. As it is not a place for the gathering of great throngs of people the walks and roadways are narrow and winding, but are quite suitable for the small but earnest class who frequent the park on account of their love for arboriculture, or who are more keenly interested in botanical research. Grass trails lead one through the "Order," the "Pinetum" and other specifically arranged collections.

Franklin Park is considered one of the greatest municipal parks of the world. It has been developed at enormous cost and yet in its primitive condition when taken over by the city it possessed many natural beauties. Its plantations at that time consisted of what is known as 'second growth" woods, not of great size or splendor, but in conformation pleasing to the eve and remarkable for the dense massing of foliage. The illustration reproduced on the cover page shows the Scarboro Pond foot bridge in

Franklin Park.

The soil is underlaid with ledges of conglomerate formation which here and there form bold cliffs and rough barren patches showing distinct signs of glacial action; its boulder aspects are particularly interesting.

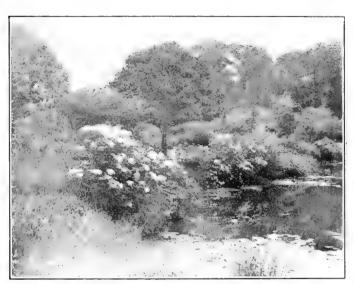


JAMES B. SHEA, DEPUTY COMMISSIONER, BOSTON DEPART-MENT OF PARKS.

The trees were the native oaks, chestnuts, birches, beeches and junipers. The newer plantations have been continued on the same lines and have been much admired.

As the topography is of the varied, uneven character many fine views result—those from Rock Morton, Hagborn Hill and the Overlook are well worth while to the visitor.

The park is practically divided in two by Glen Lane, an old public thoroughfare—the part north and nearer to the city itself, being originally intended for such forms of pleasure and recreation as appealed to the masses and for the establishment of restaurants, deer parks, and a possible Zoological Garden. This plan has been adhered to in the main, except that the Zoological Garden has taken on a greater scope than it was thought possible, having in recent years received the benefit of the income of the George Parkman fund, amounting annually to two hundred thousand dollars, bequethed to the city for park purposes. The larger part, however, south of Glen Lane, was laid out as the Country Park and affords a welcome



SAMBUCUS AT LILY POND ARNOLD ARBORETUM.

reception to those seeking a milder form of recreation or the solitude granted in the dense woods of the wilderness. or a long stroll over the broad meadows to Scarboro Hill.

The only activities are on the tennis courts in Ellicott-

dale or on the golf links.

Franklin Field, adjacent to Franklin Park, has become one of the most famous athletic grounds in the country. It is well equipped with ball grounds, tennis courts, bowling greens, cricket guards, a quarter mile cinder track, a half mile speedway and all other necessary adjuncts to the proper conduct of sports.

A narrow parkway leads through the populous district of Dorchester to the Strandway and Marine Park at South Boston, where one can enjoy all the delights of ocean scenery. Castle Island, containing old Fort Independence, is a very charming spot; here is also located

the Aquarium, recently completed. The Convention Garden is a unique institution which, it is generally expected, will be brought to a very high degree of perfection at the convention of the Society of

American Florists to be held in Boston in 1914.

The setting for the Garden in Boston's beautiful park system in cultured Back Bay district, is in the ten acre meadow south of the Richardson Bridge, one of the prominent architectural features of Boston's parks. The garden, once a feature of the gathering of florists, has been abandoned for many years back until it was resurrected last



WILDERNESS FROM HAGBORNE HILL, FRANKLIN PARK.

year at the annual convention held in Minneapolis, Minn. The display made there interested every visitor and was encouraging to the numerous delegates from the east, many of whom Leang members of the Boston Horticultural Club had previously discussed the establishment of such an exhibition.

The educational and aesthetic value of the Convention Garden can hardly be estimated—plants are shown which the general public would never have an opportunity to become acquainted with, and even from the commercial point of view, it would seem as if it would become of great value.

The Park and Recreation Department of Boston has been very generous in its attention to the interests of those



THE PINE TREE BANK AT OLMSTEAD PARK.

exhibitors who are taking part in the development of the scheme, preparing the flower-beds and caring for exhibits. It has also contributed generously by planting five or six of the largest beds, the central feature of which is a large circular bed representing the city seal.

In the lagoon bordering the Garden will be shown rare nympheai (among them Victoria Regis), nelumbiums and semi-aquatics and rare grasses for shore planting.

Many new varieties of gladioli, geraniums, roses and crotons will be shown. A large exhibit of fancy conifers will also be a feature of the Garden as will a lagoon effect after the Japanese style, pagoda, rustic bridges, etc.

It is generally expected that the Garden will be made a

permanent feature of the park system.

The growers of the country have responded generously to the request of the Garden Committee at considerable trouble and expense to themselves and have done all that is possible to make the affair a success.

Without doubt the Convention Garden will become a



FRANKLIN PARK PLAYGROUND.

permanent adjunct to all future conventions of the society, but there is an infinite amount of detail work which must be attended to and which should, as a matter of fact, commence in the autumn preceding the meeting, but experience renders all problems easy and the work undertaken at Minneapolis and Boston will be of great benefit to other

The development of this garden has been under the personal supervision of James B. Shea, Deputy Commissioner of the Boston Department of Parks, and to whom all

credit is due for the successful undertaking.

Born in Boston in 1863, Mr. Shea received his early education at Boston College. He took a course in landscape architecture at Lawrence Scientific School, Harvard College, and entered the Boston Park Department in 1891. Appointed assistant superintendent under the late John A. Pettigrew in 1897 he succeeded him as superintendent on Mr. Pettigrew's death in 1912. In 1913 Mr. Shea was appointed Deputy Commissioner of the Park and Recreation Department, which position he now holds under the following Commission: John H. Dillon, chairman. Thomas F. Galvin and Charles Gibson.



TOBOGGANING ON SCHOOLMASTER HILL, FRANKLIN PARK.

# Gardening the Oldest, Dancing the Most Ancient Art

This present epidemic of dancing-which began with the turkey trot, then changed to the bunny hug, Texas tommy, fishworm wriggle, Frisco glide and finally the tango-is the first violent appearance of social neurasthenia or hysteria since the fifteenth century.

The dancing mania of the Middle Ages did not assume the proportions of a social disease until July, 1374, when a frenzy swept through the town of Aix-la-Chapelle and whole mobs of men and women danced in the streets, screaming and foaming at the mouth.

This was kept up until they fell from exhaustion, and a great many of the dancers finished by beating their heads against walls until they heard the overture in the clouds.

The dancing mania had its greatest run in the German cities, but milder off-shoots reached out like caravans and extended into all parts of Europe.

Italy was hardest struck with this plague in the town of Taranto. It became known as tarantism, and was diagnosed by the physicians of that time as a contagious malady started by the bite of the tarantula spider.

The Italian doctors tried many ways of curing patients who had the dancing mania. They invented a very fast dance known as the tarantella, to the accompaniment of castanets and tambourines. The idea probably was to let the disease feed on itself, on the same principle that a certain dose of arsenic will kill, but an overdose will not.

It took 200 years for tarantism to run its course in the hot Italian blood, and historians recorded that the most effective plan discovered for curing dancing-mania was to bury the patients in the ground up to their necks.

Dancing is the most ancient of the arts.

Confucius mentioned it and it was recorded in that part of the Hindu Vedas written nearly 8,000 years ago.

It is found in three forms: warlike, religious and social.

The first dancing probably came as natural as breathing; in springtime youth became intoxicated with the joy of life and danced much as we see colts frisking about in pastures.

Warlike dancing began when the victors in battle leaped and shouted to express their satisfaction.

There is no primitive tribe where we do not find dancing of some sort to the rhythmic pounding on hollow logs or gourd-drums, or the beating together of sticks. When they haven't musical instruments, they clap their hands like darkeys at a breakdown.

Dancing is a pretty good expression of the people of a nation-warlike, sensuous, poetic or religious.

The Greek priests were shrewd enough to make it a

part of the national religion.

The waltz is the oldest of modern dances. It has been in vogue almost continuously since 1555 when, known as La Volta, it cropped out at Fontainebleau where Henry II. was holding court.

In 1810 there came a great revival of dancing in England. Raikes in his journal recorded that the sports of that day ceased lounging of mornings and practiced new dances, prancing about with a chair when a partner was not at hand.

Twenty-six years later, a dance known as the lancers swept into popularity. Four society girls picked it up in Turkey and inoculated London. Oueen Victoria was a lancers fiend and ordered it included in the dance programme at Buckingham Palace, where it still is retained.

Then came the polka epidemic of 1844, beside which the present tango craze is mild.

The polka was an old peasant dance, handed down with folk-lore. Josef Neruda saw a girl dance it in the Elbeleinitz market place. He showed it to some friends in Prague. From there it spread to Vienna and Paris.

Then Cellarius, a Frenchman, probably the greatest dancing master who ever lived, took the polka to London and cleaned up several fortunes with it. The newspapers said that he was kept so busy giving lessons that the one hour between 2 and 3 a. m. was the only time he had in which to sleep.

None of the freak dances of that time lasted. They were given names like ragtime music: Up Tails All, Lumps of Pudding, The Bath, The Ladies' Misfortune, Rub Her Down With Straw, and there was one dance called An Old Man's a Bagful o' Bones.

Here in America we have originated only one interna-

tional dance: the two-step.

Most of our other dances were devised by plantation darkeys-cakewalks, reels, clogs and breakdowns-and never "took" abroad, except on the stage.

The roller skating obsession of the early eighties put dancing in the background; and when roller skates got common during the nineties, dancing did not come backbicycles came in.

Then bicycles got so common that when they went by boys yelled "Ice!" and for a time it looked good for

But along came automobiles, and it was not until the novelty of riding in an automobile began to wear off that the recent revival of dancing began.

The tango did not originate in Argentine.

It came from Tango, Japan, a district on the southern shore of Wasaka Bay down on the west coast, where it originated some three hundred years ago in the city of Hashidate.

Hashidate, Matsushima and Miyashima are the Japanese pleasure resorts corresponding to our Newport,

Atlantic City and Tuxedo.

The music for the Japanese tango was strummed on an instrument known as the stamisen. When Argentine borrowed the dance from Japan and gave it plenty of advertising, they discarded the stamisen and hired brass

They also modified the dance just as a composer makes ragtime out of classical music by eliminating notes in regular combinations to get a syncopated, choppy, snappy effect.

Tango itself is an oriental word: the name of the Chinese dynasty that ruled from 618 to 905 A. D.

Nearly all sensuous dances originate in the hot countries, and Japan has been a rising point for rivers of dancing that sent out branches all over the world.

The famous side-show Hulu-Hulu dance of the Hawaiians was adapted from the Japanese sacred Hulu

We have all been reading of the great awakening of China, how the Chinese are striving to eclipse the Japs.

The success of the Japanese tango evidently made China jealous, for about the time the new tariff bill passed the Senate they exported a Chinese dance known as the tao-tao, which already is eclipsing the tango here in America.

"Hop light, ladies, your cake's all dough!"

-Exchange.

#### GROWING GRAPES UNDER GLASS.

The growing of grapes under glass in England is an old, well-established and extensive business. Moreover, it is in the hands of men who as horticulturists are second to none, and whose experience with the varieties they are now growing can be of material assistance to us in our endeavors along this line.

As this crop is grown under artificial conditions, the matter of climate is not so pronounced as is the case with imported fruits grown in the open; the chief difference, perhaps, being those of less atmospheric humidity, and greater light and heat intensity. Both of these conditions can be greatly modified by more frequent "damping down" and by the use of a light shade sprayed on the

A list of the varieties of Vitis vinifera would be legion, but perhaps 75 per cent. of the total glass crop of Great Britain is produced by only six or eight varieties. These varieties have proved themselves to possess in a marked degree the characteristics of vigor, prolificacy and quality. The varieties in question are: Black Hamboro or Black Hamburg, Muscat Hamboro, Alicante, Gros Colmar, Gros Maroc, Foster's Seedling, Mandresfield Court and Muscat of Alexandria. The last-named is liable to be somewhat shy in setting fruit under certain conditions.

The best way to grow the European grape is in a thoroughly drained and carefully prepared vine border, built within the greenhouse and along its sides. The young vines should be planted at least 12 inches from the wall, and if two rods are to be grown from each vine, the vines should be planted 8 feet apart, to allow 2 feet on either side of each rod for the growth of the laterals.

From a dormant condition the vines should be induced to break into leaf gradually. Undue haste at this time often spoils a crop. If budding out is slow or uneven, this may be remedied by laying the rods on the ground and syringing more frequently, or syringing with tepid water.

The average length of time taken to grow a crop of grapes from that of starting the canes into growth till the fruit is ready to cut, is usually from five to six months. It depends upon the time of year the crop ripens, after which the vines require a rest, and an opportunity to ripen the wood made. The grape crop is really a quick crop when compared with the crops of other hard-wooded fruits, but it requires continual attention. Successive annual crops are obtained only by experience, often of a most disheartening nature.

The writer spent several years with one of the largest commercial grape growers in England, who had considerably more than 12,000 linear feet of glass in grapes alone. Annually these vineries would produce crops of perfect fruit, and varying but little in yield from year to year. The estimated standard or yield for such varieties as Gros Colmar, Black Hamboro and Alicante was one pound of fruit to each linear foot of vine rod. Thus a vine bearing two main rods each 18 feet in length, making a total rod length of 36 feet, would be expected to yield 36 pounds of fruit.

During the time of flowering, the setting of the fruit is greatly assisted by gently tapping the canes once or twice a day. Sometimes a rabbit's tail, or soft camel's hair brush, is used to distribute the pollen, and a third

expedient is that of dusting the blossoms with Pampas Gras bloom, and so doing the duty of nature and the bees; this has been found to produce the desired result.

The grape is a heavy feeder (or in other words, to produce the best results, commercial fertilizers require to be liberally used). In connection with the use of commercial fertilizers though, the motto of the amateur should be "festina lente." A little at a time given regularly will produce far better results than liberal applications at distant dates. The grower should bear in mind the different requirements of the grape at different stages of its growth. During the first two months leaf growth is required, and the use of a nitrogenous manure such as ammonium sulphate is beneficial. Nitrate of soda is not quite so safe to use, especially in the case of vines growing in pots. Ammonium sulphate is best applied in solution at the rate of a quarter of an ounce to each gallon of water, twice a week. With vines growing in a border, the application is somewhat stronger, as watering is not so frequent as is the case with pot-grown vines.

When the fruit clusters appear the tips of the laterals are usually nipped off, leaving two leaves beyond the fruit cluster. During the flowering period and while the fruit is setting, feeding is generally withheld, though some growers with marked success use a little muriate of potash (KCL) at this time. With hard-wooded plants in pots, muriate of potash should be used with care. When the fruit is set and is about the size of small garden peas, sufficient leaf and wood growth should have been obtained and the further use of nitrogenous manure is apt to be harmful to the full maturity of the fruit.

The bunches of fruit at this period are thinned by means of fine pointed scissors. The smaller berries are removed and the remainder are thinned in tiers, so that each berry will have room to develop to its full size, and the whole bunch ultimately develop the form of a symmetrical cone hanging point downwards. At this time the energies of the vine are engaged in the development and maturing of the fruit, and the feeding of phosphates and potash in available form will quickly show beneficial results. When the fruit begins to color the proportion of potash may be slightly increased.

When using commercial fertilizers it is well to remember that underfeeding is a far safer course than liberal feeding, as an unduly heavy application may prove fatal. Lastly, certain varieties are very subject to sun-scald, and in this instance the variety "Lady Down Seedling" may be particularly mentioned. When any evidence of scalding appears on the berries, the shading should be increased, if this can be done without unduly hindering other vines in the same house.—A. G. Logsdail, in Canadian Florist.

### HOW TO GET A NEW LAWN QUICKLY.

In making a new lawn or grass plot, or renewing an old one, it usually takes an entire season to secure even a presentable sward. This gives the dwelling and surroundings an unfinished and undesirable appearance, which even the presence of flowering and foliage plants and vines does not entirely relieve or disguise—in fact rather accentuates.

To gain time and to secure a very presentable and attractive lawn or grass-plot in the short space of three or four weeks, writes D. Z. Evans, in Suburban Life, I have adopted the method of sowing oats with grass seed. The oats soon come up—in about ten days or two weeks,—and are kept cut down short to make the plants stool out well, covering the entire ground with a pleasing shade of green and giving the effect of a neat lawn, while the small and tender grass-shoots are maturing. The oat

is a perennial plant, and dies out in the fall, leaving the roots and crown to decay and furnish plant growth to the grass plants.

As this method can be used even as late as September, and in one case I successfully used it in October, when there happened to be a late fall,—a very satisfactory show of lawn can be had even though it is done well along in the fall.

In preparing the soil have plenty of good top-soil, free from stones and rubbish and finely worked over. Sow the oats freely, but not too heavily, as it will stool out considerably in rich well-prepared soil, and then follow with good lawn grass seed of known excellence and mixture. Thoroughly cover the entire bed with a light covering of fine, well-rotted manure, and then rake it over well, to cover the seed. If the season is dry, wet down the bed well by sprinkling—not flooding—and leave for a few days. If rain does not come in two or three days, give another wetting and then leave until the oats have shown nicely all over the bed. After the first cutting, which should be done when the blades are about five inches in height, see that the lawn is well watered; the same as an ordinary lawn.

In making over an old lawn, thoroughly break up the old sod and remove all the old grass roots and tops, after which treat it the same way as suggested for a new lawn. The above method will be found very much more desirable and far less expensive than having the lawn sodded with field sod, usually secured from places which have weeds of different sorts in it. Aside from this, such sod is old and often will turn out badly or die out soon, leaving the lawn spotted with bald places. The method I suggested is an easy one to secure a "quick" lawn, the growing oats also protecting the young and tender grass shoots until they are able to take care of themselves.

#### LIMITING HIS DUTIES AS GARDENER.

An applicant responding to a "gardener wanted" advertisement, being favored with an interview and informed by the lady that his duties would involve, besides the responsibilities of looking after the flower and kitchen gardens and the lawns, the care of two horses and three cows, looking after the chickens, act as chauffeur, assist with the inside kitchen work, tend to the furnace and make himself generally useful, inquired "And what sort of soil have you here?"

"Soil!" exclaimed the lady; "what has that got to do

with a gardener's position?'

"Well, replied the applicant, who proved to be an Irishman, "if it is clay I don't want the job, for I am afraid the gentleman may want me to make bricks in my spare time."

# The Service Bureau National Association of Gardeners

Is maintained for the purpose of providing opportunities for efficient and ambitious men engaged in the profession of gardening.

This department of the Association is at the disposal of those who may require the services of capable superintendents, gardeners or assistant gardeners.

The co-operation of estate owners is respectfully solicited. Address

M. C. EBEL, Sec'y,

National Association of Gardeners,

Madison, N. J.

# Winter-Flowering Sweet-Pea Culture

By Anton Zvalonek.

The ideal soil for the sweet-pea is sandy loam. Red shell soil is very excellent if taken about six inches of the surface; and very coarse gravelly soil, if well fertilized, will also grow very good sweet-peas. Soil taken from swampy places, provided it is not heavy clay, but only black sediment, is very good if not used the same year. Such soil should, in the fall, be spread out about sixteen inches thick on high ground. Left there over winter, the rain and frost will wash out any alkali which the soil may contain; white clover seed scattered over this is also very beneficial. In about six months, or say in June, compost may be made of this soil by using one part of short manure to three parts of soil. Use some air-slacked lime and coarse bone.

For December and January cutting only large houses should be used so that the sun can penetrate every correre. In such houses it is possible to get satisfactory crops only during these two cloudy months. If you have not an up-to-date greenhouse, the sweet-peas should be sown later, say in October. Sweet-peas sown late this way will not bloom before February, at which time there is sufficient sunshine for a good flowering crop. All that is needed is eight feet of head room.

Solid beds of one and a half to two feet of good soil are the best. After the soil is well prepared in the beds, it should be well tramped down, and if too dry, watered down evenly to the base, leaving it for several days until

the soil is just in proper condition to work.

To prevent slow germination, soak the seed you intend to sow in water for about fifteen hours just before sowing. This will cause the seed to soften and swell o that when sown they will germinate quickly. Those seeds which still remain hard should be filed. The best method is to use a very fine flat file, taking one seed in each hand and striking it once or twice over the file just enough to cut the hard skin. The seeds treated in this way should be dropped back into the water, and within another fifteen hours they will be soft, swollen up and ready to sow.

When the beds have been well prepared as described above, press the soil down as firmly as possible, and rake everything off very smooth. Then make rows at least three feet apart and drop the seed about three inches apart in the row, not more than one and a half inches deep. Be sure before sowing the seed that the soil is in just the right working condition. Never sow seed in soil which is too wet and sticky; rather wait a few days until all is right. Moreover, never sow white sweet-pea seed in dry soil which has to be watered before the seed is up. Any seed of this variety, if sown in dry soil and watered very soon after being sown, will seldom germinate. After all the seed is in, rake the surface of the bed very fine for about one inch deep. This will make a very fine pulverized soil mulch on the top, which dries off soon, thus preventing the lower moisture from escaping, besides keeping the entire lower soil very cool, which is very needful to sweet-peas when starting. If these directions are carried out, no watering will be necessary for ten days at least, or at any rate as long as all the seed is not up, or so long as you can find moisture about four inches below the surface. Sometimes I have let three weeks elapse before watering the beds. This method encourages the seed to sink their roots deep in the soil, hunting for the moisture. Such sweet-peas, with deep roots, can withstand the hottest days without damping off, as is so often the case when the moisture is kept only on the surface. If it becomes necessary to water, you should water well down to the base, but not very often, keeping the surface rather dry and well worked. After sowing, the temperature should be kept as low as possible; and if the seed is sown in August, when the weather is extremely warm, the glass should be whitewashed slightly as long as the hot weather continues. Spraying the plants and glass from the inside between 11 a. m. and 4 p. m. also helps to keep down the extreme heat. After the sweet-peas are up the plants may be sprayed several times each day during such hot spells.

After the seed have been sown, keep the greenhouse as cool as possible, admitting air day and night as long as the weather will permit, and there is no danger of frost. The cooler it is when the plants are started, the stronger and healthier they become. It is necessary late in the fall to start firing, so that the steam and hot water may be turned in the heating pipes. Keep the temperature from 40 to 44 degrees Fahr, at night, never any higher, for if it is kept too high, the young plants will begin to bloom too soon, and before the roots have had a good start. Such plants, forced in this way, usually produce very small flowers with short stems. The Winter Sweet-Pea, if sown in August or later, when well grown should be at least thirty inches high before showing the buds. The higher they are in that stage the better the results. I would rather see sweat-pea plants four feet high showing the first buds than two feet. Sometimes during especially warm and bright falls the plants show the tendency to bud very early. In this case I recommend picking all the buds as soon as they appear. This will give the plants better root-growth for the later crop. After the plants are two and one-half to four feet high, they will all bud. This is the time to raise the temperature, increasing it every night by one or two degrees. If the temperature averaged 44 degrees, make it 45 degrees the next day, and so on until 52 is reached. This is the highest temperature for the older winter grandiflora at night. When in bloom, 60 degrees during cloudy days and 68 during bright days is best. All the new Winter Orchid-Flowering Sweet-Peas, in the first stage, need the same treatment as that just prescribed above for the winter-flowering sweet-pea, i. e., 40 to 45 degrees at night and 55 to 65 during the daytime, according to the weather, if bright or cloudy. But after these are in bud and flower, raise the temperature to 55 degrees Fahr. at night and 60 to 65 for cloudy days and 70 to 72 during bright sunny days. This higher temperature is necessary for the new strain, as the flowers are twice as large and the number of flowers to the stem twice as many; and the additional warmth prevents the falling off of the buds and causes the flowers to have brighter

Very often we hear of plants losing all their buds. To prevent this, keep an even temperature, especially during the night. If, during a frosty night, the temperature is 55 degrees Fahr, in the greenhouse, at seven o'clock in the morning the glass will be heavily frosted. As soon as the sun comes out the ice inside will begin to melt, causing a heavy dampness in the greenhouse. Many growers usually shut off the heating pipe as soon

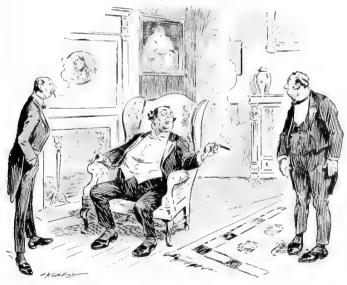
as the temperature begins to rise, but this should not be done, as the dampness thus kept in the greenhouse causes the buds to fall off. What should be done is to let the heat on for a while, but open the ventilator slightly so that the dampness may escape. As soon as the thermometer begins to rise one or two degrees, open the ventilator more and more, so that the highest temperature of 70 to 72 degrees may not be reached before 11 a. m. This should also be done gradually during the afternoon. From about 2 to 3 p. m. begin gradually to reduce the temperature by lowering the ventilator, never leaving it open until the temperature is entirely down to 55, but letting the ventilator go down by degrees.

If it becomes necessary to water, select only very bright days when you are sure that the ventilator may be kept open for several hours at a time. If, after watering, there is any sudden change in the weather, start the fires at once and leave the ventilators open as long as possible.

After the plants have reached the height of about six inches, they should be given something to climb on. The best method and the cheapest is to run one wire on the bottom and one from eight to ten feet above each row, connecting these two wires with strings as is done in the case of smilax. Strings should also be run lengthwise of the row, about every ten inches, as the plants advance in growth. At the same time it is well, occasionally, to help the vines to climb on the strings. upper wire must be one of the strongest, for when the sweet-peas are in full bloom they are usually ten feet high, and one row of one hundred feet will weigh a ton. If, at any time, the wire should break, all the flowers would become bruised, crooked and of very little value. In order to divide the weight, wooden or iron supports should be placed by the upper wire every eight feet.

After the sweet-peas have been in bloom for some time and have begun to shorten in stem, they should be fertilized. The best thing is liquid cow or sheep manure, or pulverized manure. Nitrate of soda should never be used, for it will do more harm than good. Another thing never to be used is hydrocyanic gas, for, although this destroys all insects, at the same time it destroys all the buds then in formation, so that there will be no flowers for many months to come.—Extracts from Anton C. Zvalonek's book on Sweet-Pea Culture.

#### MERELY A PRECAUTION.

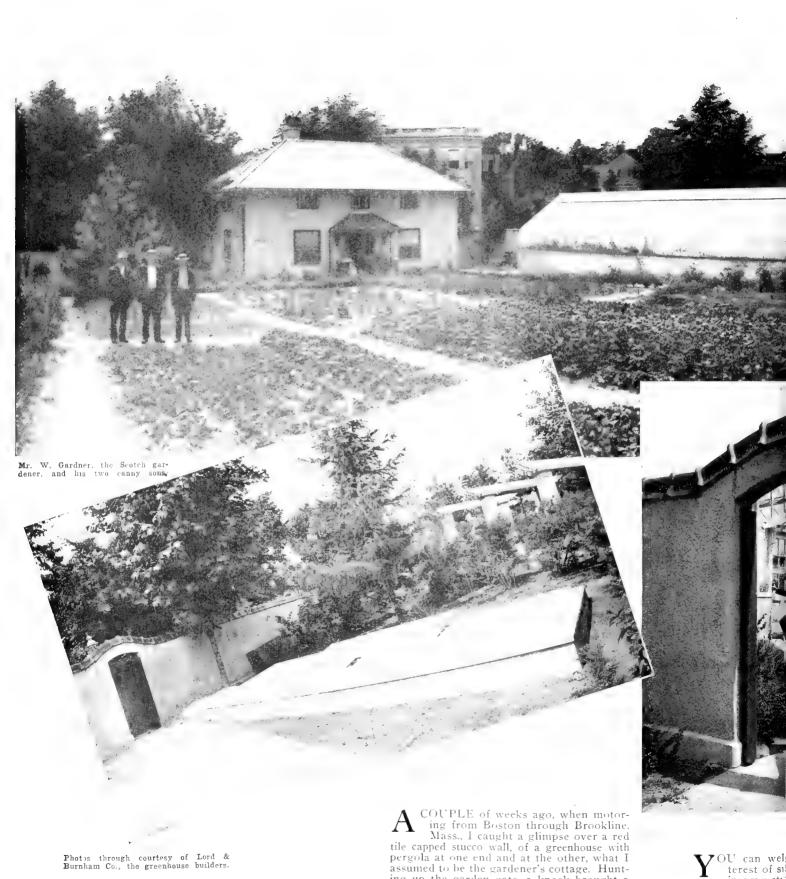


OLD ROXTON: The limousine, Peters! And Peters, owing to the present temper of the unemployed, leave out the cut-flowers!—Life.

#### ROOTING CUTTINGS UNDER BELL-GLASSES.

Comparatively speaking, there are very few hardy shrubs which cannot be multiplied by means of cuttings. It is not surprising, however, considering the great variety of shrubs cultivated in our gardens, that several different methods are necessary. Quite soft cuttings made of the young shoots of some shrubs will root during July in a propagating-frame with plenty of artificial heat. During August and early September cuttings made of the half-ripened wood do admirably in a close frame, preferably with a little bottom-heat. October is about the best time to insert cuttings under bell-glasses, as at this season the shoots made during the previous summer are fairly hard or ripe, and will make best plants.

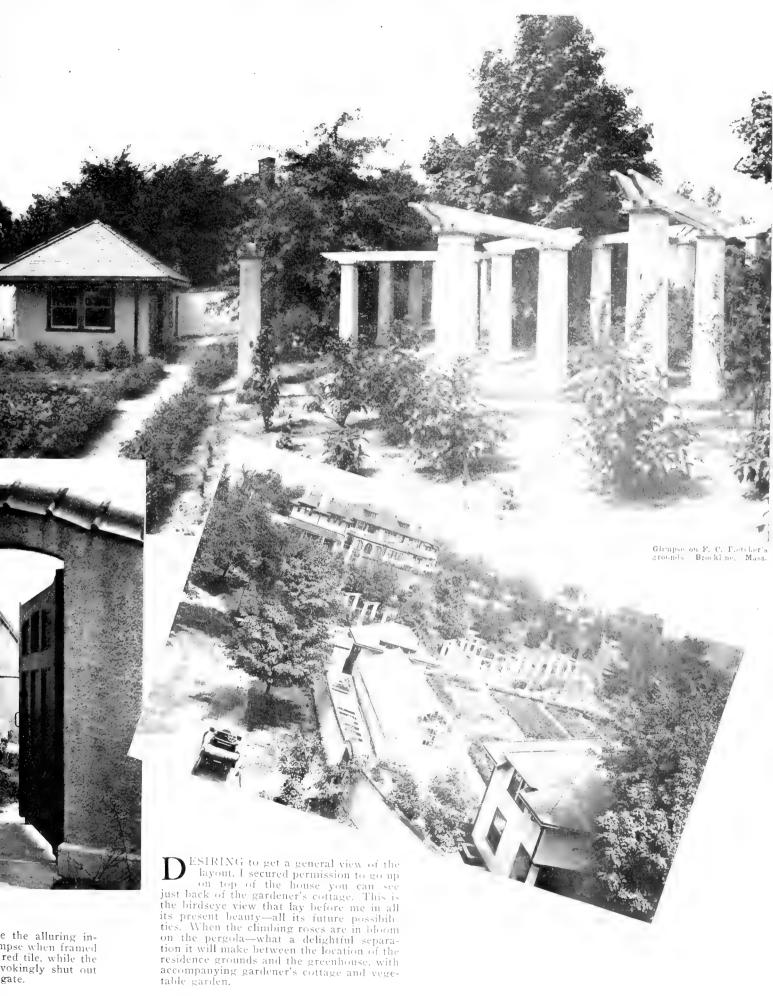
Choose a sheltered position under a fence or hedge, protected from the sun during the middle of the day, yet one where the young plants as soon as rooted obtain plenty of light. The soil should be well drained, light and sandy; if at all heavy, a raised bed of soil, kept in position with boards may be prepared. Place in the bottom 3 inches or rather more of rubble or clinkers for drainage; then fill up with 4 inches to 5 inches of light, prepared soil consisting of two parts sandy loam, one part peat, one part leaf-mould and one part coarse sand. Make the whole firm and level the surface, spreading over it a, thin layer of silver sand, which will trickle in the holes round the cuttings as they are inserted. For convenience of inspection and attention the prepared bed should not be too wide; a sufficient width to take three rows of bellglasses is ample. The bell-glasses vary in size from a diameter at the bottom of 4 inches to a foot. The size of the cuttings must of necessity vary in length and thickness according to the nature of the shrub, whether slender or stout in growth. An average length will be from 3 inches to 6 inches, inserting about one-third of this length in the soil. Whenever possible, the cuttings should be made with a fragment of the old wood attached to the base; this is familiarly termed a "heel." In most cases it is desirable to cut off 1 inch or 2 inches at the top of the shoot, the growth being tender or soft and liable to damp off in winter. With evergreen shrubs this is not so important, the leaves tending to keep the shoots fresh. Before dibbling in the cuttings, the bellglass should be placed on the prepared bed and pressed in the sand to mark the outside of the patch of cuttings. The number of cuttings inserted under a bell-glass will depend on the size of the cuttings and the amount of ground covered by the bell-glass. Under a bell-glass 4 inches to 5 inches across it is possible to insert forty to fifty Erica cuttings, as these are only 1 inch to 1½ inches long. A bell-glass a foot across will cover fifty cuttings of Tea Roses. It is not necessary to limit each bell-glass to one kind of cutting. Choose those which are similar in size and which take about the same time to root. Label each one carefully, and put the date when inserted on the label for reference. To prevent the cuttings flagging, rool them in a wet cloth as soon as they are cut off the parent bush; this will be found more convenient than placing them in water. The cloches used so much in French gardening will answer the same purpose as the bell-glasses; hand-lights may also be used. As it will be desirable to afford a little protection to the cuttings during severe frosts, the bell-glasses should be conveniently placed so that they may be covered. The cuttings should he well watered as soon as inserted with a fine-rosed watering-pot to settle the sand round the cuttings. Further watering will probably not be necessary more than once a month till the end of January.—The Garden.



ing up the garden gate, a knock brought a click in the latch and the jovial gardener let me in. Here is what I saw.

Photos through courtesy of Lord & Burnham Co., the greenhouse builders.

OU can wel terest of s1 in gray stt by a heavy oak



THE

# GARDENERS' CHRONICLE

OF AMERICA.

MARTIN C. EBEL, Managing Editor.

Published by

#### CHRONICLE PRESS

M. E. MAYNARD, President.

A. A. FAY, Sec'y.

Office of Publication

1 Montgomery Street, Jersey City, N. J.

New York Office 236 WILLIAM STREET, NEW YORK CITY.



Subscription Price, 12 Months, \$1.00 :: :: Single Copies, 10 Cents Foreign, \$1.50

Entered as second class matter February 18, 1905, at the Post Office at Jersey City, N. J., under Act of Congress of March 3, 1879.

Published on the 15th of each month. Advertising forms close on the 10th preceding publication.

For information regarding advertising rates, etc., address Advertising Department, Gardeners' Chronicle, Madison, N. J.

#### ADOPTED AS THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS.

WM. H. WAITE,

JAMES STUART, Mamaroneck, N. Y.

Tr. cPresident,
J.W. EVERETT, JAM
J.Y. Glen Cove, N. Y. Mamai
Societies MARTIN C. EBEL, Madison, N. J.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheitz, Ogortz, Pa.; William Duckham, Madison, N. J.; Mexander MccKenzie, Highland Falls, N. Y.; John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1915—John Shore, Harrison, N. Y.; Thomas Proctor, Lenox, Mass.; William N. Craig, Brookline, Mass.; Frank E. Witney, Fishkill, N. Y.; Robert Williamson, Greenwich, Conn.; F. Kirk, Bar Harbor, Me.; James Bell, New York, N. Y.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

Vol. XVIII.

AUGUST, 1914.

No. 4.

As we go to press practically all of Europe is engaged in a terrible war. As to the justification of plunging nation upon nation into conflict in this enlightened age, to appease the wrath, or satisfy the desire of conquest, of a few monarchies, on this point there can be but one rational opinion entertained. We feel for the host drawn into battle and dread to think of the slaughter which must follow. The entire world will be effected by this overwhelming catastrophe with which the old world has been engulfed. How much the world will suffer, of course, will depend on the war's duration. European horticultural centers are threatened; in fact, battles have already been fought in the vicinity of some of these centers, so that interests with which many of our readers are closely allied must become serious sufferers. In a calamity, such as we are confronted with, there is little that can be done to relieve the distress of those involved. The prayer of our people should be that God guide those now engaged in sacrificing the lives of their subjects, to an early cessation of this unnecessary slaughter of mankind which some sovereigns appear to believe the Almighty really con-

The unsettled conditions which have been created by the European warfare suggest that man must be content with his lot as he finds it for the time being at least.

Those among the gardening fraternity who may be becoming restless as the summer season is drawing near an end and the fall season is approaching, seeking a change for betterment, or an opportunity for advancement, should consider carefully before vacating any position in which they may now be installed. Retrenchment is at the moment the uppermost thought in the minds of most men, and this includes those who are surrounded with life's comforts and luxuries. Few are thinking of expansion until the outlook becomes brighter than it is at present. Pessimistic utterances are not our strong forte, but the occasion warrants sounding a warning that this is no time to sacrifice a "sure thing" to take chances on an uncertainty.

We feel quite certain that the economical moods which materialize now and then on the part of our wealthy citizens are not always warranted or justified, but sentiment governs rich and poor alike, so when "hard times' are preached the rich man's nerves seem as much affected as those of his less fortunate brothers. We believe on the other hand, however, that we may console ourselves, no matter what the first effects of the war may be on this country, if adverse they will not be lasting, and that in the very near future it will enter into an industrial boom unprecedented in its history.

But few days remain before the horticulturists and floriculturists of the country will congregate in Boston at the annual convention of the Society of American Florists and Ornamental Horticulturists. The trip to Boston offers an exceptional opportunity both for education and for pleasure; in studying the outdoor plantings in the convention garden, the trade exhibits in the convention hall, mingling with fellow horticulturists coming from all parts of the country and visiting private estates and commercial establishments which are throwing their gates wide open to receive the visitors.

We appeal to all gardeners to make a special effort to attend the S. A. F. convention, and the meeting of their national association, which will be held at the convention through the courtesy of the sister society. Let the gardeners show their appreciation by having a largely attended meeting of their profession.

### LIFE AFTER LIFE.

Could I but teach man to believe, Could I but make small men to grow, To break frail spider webs that weave About their thews and bind them low. Could I but sing one song and lay Grim Doubt; I then could go my way In tranquil silence, glad, serene, And satisfied, from off the scene. But, all this disbelief, this Doubt, This doubt of God, this doubt of good. The damned spot will not out.

Wouldst learn to know one little flower, Its perfume, perfect form and hue? Yea, wouldst thou have one perfect hour Of all the years that come to you? Then grow as God hath planted, grow A lordly oak or daisy low, As he hath set his garden; be Just what thou art, or grass or tree, Thy treasures up in heaven laid Await thy sure ascending soul, Life after life—be not afraid!

Joaquin Miller.

### NATIONAL ASSOCIATION NOTES

M. C. EBEL, Secretary, MADISON, N. J.

# SUMMER MEETING NATIONAL ASSOCIATION OF GARDENERS, REVERE HALL, MECHANICS' BUILDING, BOSTON, WEDNESDAY, AUGUST 19, AT ONE O'CLOCK.

Through the courtesy of the directors of the Society of American Florists the National Association of Gardeners will hold its meeting in the building in which the S. A. F. convention is held on Wednesday the 19th inst., at one o'clock. All gardeners and those interested in the gardening profession, whether members or not of the N. A. G., are cordially invited to attend this meeting.

Several able speakers will address the meeting, among who will be Theodore Wirth, Minneapolis, Minn; William F. Gude, Washington, D. C.; James C. Kennedy, Boston, Mass; Arthur E. Thatcher, Bar Harbor, Me; Arthur Smith, Reading, Pa; and Harry A. Bunyard, New York, N. Y.

All members of the N. A. G. in position to attend the summer meeting should make a special effort to do so. The trip to Boston offers several days of pleasant vacation where the visitors will find much to entertain them. From the horticultural point of view there are few places to be visited in this country which will prove more interesting than the trip to Boston and its vicinity.

#### THE NATIONAL CO-OPERATIVE MOVEMENT.

The Philadelphia Florists Club appointed a committee on co-operation at its August meeting to work in conjunction with the National Committee of the National Association of Gardeners. With this club and the Gardeners' and Florists' Club of Boston, which appointed its committee some time ago, the movement now has two of the strongest clubs in the country, numbering many gardeners in their membership rolls, affiliated with it.

Practically all the local gardeners societies in the east have joined in the movement and several western societies have signified their intention of doing so this fall. The Redlands Gardeners' Association of Redlands, California, and the Texas State Horticultural Society, are among those which have enlisted to co-operate with the N. A. G.

#### NEW MEMBERS.

During the past month the following new members have been added to our lists: Henry Gibson, Tuxedo Park, N. Y.; John W. Baxter, South Dartmouth, Mass.; Hugh Lyons, New Rochelle, N. Y.; John Forbes, Davenport Neck, N. Y.; Walter Boggis, Convent, N. J.; John Scheepers, New York, N. Y.; T. Nelson, Stamford, Conn.; Frank Honeyman, Glen Cove, N. Y.; Angus MacGregor, Glen Cove, N. Y.

### AMONG THE GARDENERS

Alexander MacKenzie, superintendent of Mrs. J. Pierpont Morgan's estate, Highland Falls, N. Y., was a recent visitor at Glen Cove, N. Y., where he formerly supervised the Percy Chubb estate. Mr. MacKenzie

spent several days in his old community visiting many of his gardening friends.

Arthur Griffin, formerly of Newport, R. I., is reported to have accepted the position of superintendent of a private estate at New London, Conn. Fuller details are lacking.

Friends of William Kleinheinz, Ogontz, Pa., who sailed for Germany accompanied by his wife on July 4, trust that he will have no difficulty in leaving his fatherland to return to his adopted country. Mr. Kleinheinz expected to return about September 1.

Peter Duff, of Orange, N. J., one of the trustees of the N. A. G., who expected to return from his trip to Scotland in time to attend the summer meeting of the association, is reported to be finding difficulty in securing transportation home and it now seems doubtful whether he can return in time for the meeting.

John H. Dodds, of Wyncote, Pa., and Andrew A. Macdonald, of Somerville, N. J., are both on the other side visiting England and Scotland and expected to return early in September. They will probably find no serious difficulty to obtain transportation when their vacation is over.

J. H. Anderson, formerly located at the State School, Owatonna, Minn., has accepted a position of the D. O. Mills estate, Millbrue, Cal.

Alexander Shaw has resigned his position as head gardener to Judge William H. Moore, Pride's Crossing, Mass.

John R. Ness, of Brookline, and Peter Arnott, of Chestnut Hill, Mass., sailed on July 31 for an extended British tour. The Shrewsbury and Edinburgh shows will be visited.

Professor C. S. Sargent, head of the Arnold Arboretum, is one of the many detained abroad owing to the war. The war has prevented several gardeners in the vicinity of Boston taking their vacation abroad.

Edward R. Smith, formerly of Faulkner Farm, Brookline, Mass., has accepted a position as head gardener to Miss Myra Hall, Pittsfield, Mass. Mr. Smith was for three seasons a student in the landscape class conducted by the Gardeners' & Florists' Club of Boston.

James Methven, head gardener on the Van Brunt estate, Milton, Mass., is convalescent after a long and painful sickness.

Visiting members of the N. A. G. should not fail to look over the Boston Park system and Arnold Arboretum. At the latter institution the veteran Jackson Dawson will be glad to show courtesies to all visitors.

# The Private Gardener in Commercial Fields

The subject of our sketch, Chas. H. Totty, of Madison, N. L. was born in Shropshire, England, in September, 1873, and is now forty-one years old. In his early 'teens in common with most other youthful seekers after horticultural knowledge he served his three years apprenticeship and was passed along to Dickson's celebrated nurseries at Chester in 1890. He is at all times willing to bear testimony to the good that a young fellow derives from such nursery experience. He says a few weeks spent in getting up orders in a first-class nursery gives an observant young man an almost cyclopedic knowledge of plants, if his memory is good and he concentrates on his work. Too many of our American boys in this age of specialization never acquire even a speaking acquaintance with the numerous varieties of trees and shrubs, not to mention the thousands of varieties of orchids and stove plants, in cultivation at the present time.

After a year at Dickson's, Mr. Totty went to the Norris Green Estate in the hands of the Gladstone family, located at West Derby, Liverpool, immediately adjoining the estates of the Earls of Sefton and Derby. This establishment was largely known for the quantity of excellent fruit grown there and the training in fruit growing there received during his two years' employment, was a great help in rounding out his horticultural knowledge, which previously had been confined to plants and flowers.

In May, 1893, Mr. Totty came to America and secured a position with Mrs. F. F. Thompson, Canandaigua, N. Y., although this estate was not nearly so large at that time as it is now. In the spring of 1895 he returned to New York and drifted out to Pitcher & Manda's establishment at Short Hills, N. J., looking for a position. They sent him to the Twombly Estate at Madison, N. J., in which town he has remained ever since. He was largely responsible for the chrysanthemums exhibited from this estate from the year 1898 to 1903, which gave the name "Florham Farms" a world-wide reputation.

In 1903 Mr. Totty started into business for himself at Madison, buying out the Hart greenhouses of that place. His expert knowledge of chrysanthemums together with his extensive acquaintance among the expert growers of the country served him in good stead. In 1909 the opportunity presented itself to lease the Twombly Greenhouses, where he had taken his first position in Madison. This establishment with its large glass area and commodius packing sheds was just what was needed to take care of his rapidly increasing business.

From the first Mr. Totty has made a specialty of producing high-class stock of chrysanthemums, carnations, roses, and other novelties that show merit. In 1910 he was given the exclusive American agency for the Wells-Pockett varieties of Novelty 'Mums. It will be noted in any exhibition that most of the first-prize 'Mums are varieties that Mr. Totty introduced to the American trade

He is the introducer of the single type of 'Mums which have become so popular the past few years, and also the Early Flowering 'Mums, which are now almost as extensively grown as Geraniums. In reference to the latter type, he has this past year signed an agreement with August Nonin of Paris, France, by which he becomes

the sole American agent for this grower, who has done more than anyone else in the world to improve this Early Flowering type of Chrysanthemum. At the present time Mr. Totty has a great many Early Flowering seedlings under test at his Madison establishment.

While the catch-phrase "Totty's 'Mums' is world-wide, his novelty business is not confined solely to this flower. In 1911 he introduced the English rose, "Lady Hillingdon," to the American trade. In 1912, in conjunction with the E. G. Hill Co., of Richmond, Indiana, he distributed the French variety Sunburst. In 1913 he gave us the pink rose "Mrs. Geo. Shawyer," which is an English seedling grown by Lowe & Shawyer and introduced to the English trade by that firm. This latter variety seems destined to become one of the most popular pink varieties grown.

Mr. Totty is also the American agent for Hugh Dickson, Ltd., of Belfast, Ireland, for his Novelty Roses, and as "Dickson" is a name to conjure with we can hope to



CHARLES H. TOTTY

hear a great deal more of him in this connection in the future

Mr. Totty is an ex-president of the New York Florists' Club, and at the present time a trustee of that body; he was for three years president of the Chrysanthemum Society of America; in 1912 was appointed a director of the Society of American Florist & Ornamental Horticulturists. He was appointed chairman of the National Flower Show in New York in 1913, and his work in that capacity still speaks for itself.

#### NUT CULTURE FOR FUN AND PROFIT.

By H. E. VAN DEMAN.

There is an increasing interest in nut culture all over America, and very properly so. This is largely owing to a better knowledge than formerly of the value of nuts as an article of food and in some degree to an increase of production through their culture in the hands of intelligent and enterprising growers. The most valuable of all the native nuts of America is the pecan, known by botanists as Hicoria pecan. It is the best nut in all the world, so far as discoveries have been made, unless it be the cocoanut, which has a wider field of usefulness because of its oil used in commerce and manufacture. But for richness of kernel, delicious flavor and generally satisfying qualities to the consumer there is no other nut that is its equal.

Its natural range is from southern Iowa to Mexico, but mainly in the valley of the Mississippi and its tributaries. Unfortunately, for its general culture, the southern types of the pecan, which hear the best nuts, are tender in tree, and not suitable to the more northern sections. It was in Louisiana that the first efforts were made in pecan culture, and in the culture of any of our native nuts as well. This was done by the French and Spanish pioneers, who, seeing the excellent character of some of the wild pecans, planted them about their homesteads and some of those trees, now centuries old, are yet standing. But it was not until recent years that propagation by grafting and budding was undertaken. Now it is a common practice and the culture of many choice varieties is extensive and eminently successful in the cotton-growing area.

Stuart, Schley, Success, Van Deman, Pabst, Moneymaker, Alloy, Delmas and Frotscher are among the best of the choice varieties, and grafted and budded trees may be bought reasonably. They should be planted in rich land and not nearer than 60 feet apart, and 100 feet is a better distance.

But the culture of the pecan in the regions north of the cotton belt is a most desirable thing to attain and it is being attempted by selecting the choicest varieties of the hardier types of the species and propagating them by grafting on to seedlings of the same type. In the creek and river bottoms of the southern parts of Indiana. Illinois and Missouri there have been found a very few varieties that are reasonably large, thin shelled, that have plump kernels that come out of the shell easily and that are produced abundantly on hardy trees. These are being tested out and trees will soon be for sale by the nurseries, although it is too soon to list many varieties now. Indiana, Major and Green River are the best of those now known.

There is one species of hickory that grows over a large territory, from New England to Wisconsin and Missouri, that is well worthy of far more attention than it has yet been given. This is commonly known as the Shagbark or Little Shellbark, otherwise Hicoria alba. In quality of the kernels it is scarcely inferior to the pecan and some think the flavor even superior. The nuts are highly esteemed and find ready sale in the market at good prices. The size is somewhat variable and the shape also, but the nuts average about an inch in diameter and are oval or roundish in shape. The shell is reasonably thin and the kernels are not very hard to extract. There are a few varieties that are far better in all respects than the average and some of them have been named and are being propagated by budding and grafting them on to seedlings of their own species. Among these are the Rice, Kirtland, Weiker and Milford.

It is quite essential that the kernels and shells be of such character that they part easily, that the meats may be extracted in halves, for upon this point depends much of their value. There are many such kinds and they should be sought out and none others planted. Seedlings from them would be of more value than if any kind of hickory nut was planted, but there is no certainty and little probability that nuts of very superior value would be secured in this way. The planting of groves of hickory might be done with such seedlings or with the nuts placed directly where the trees are to stand. There are thousands of waste corners and little fields that could be covered with hickory trees at small expense that would change them into a condition that would be beautiful, profitable and lasting. Among the oldest of the cultivated nut trees is the walnut. The species that is commonly grown for its nuts, Juglans regia, is a native of parts of eastern Europe and Asia Minor, and was brought to France and the British Isles by the Romans centuries ago. In America it is commonly called "English" walnut, but Persian is a more suitable name and the one now considered proper. The early settlers in America brought it from England and France to our eastern coast and the Spaniards to the Pacific coast. Owing to climatic causes, in part, and others not well understood, there has been little development of the walnut industry east of the Rocky mountains, but on the Pacific coast it has grown to be a large and flourishing The walnut growers of California are in the lead, but Oregon and Washington are likewise adapted to the business, and many orchards are now being planted there.

In the eastern States there is wide opportunity for walnut culture, that is almost untouched. The climate of the Central States seems to be unsuitable to this tree, but there are many trees in the Atlantic States, both old and young, that are flourishing and bearing good crops of nuts. Some of them are in Pennsylvania, New York and New Jersey, and there is no good reason why there may not be thousands more planted with success. It is a neglected industry that will, in due time, it is hoped, be developed as it should be.

The varieties that have been planted in nearly all parts of the country have been seedlings, and for the most part of types that are rather tender. In general, those of the Pacific coast are not suitable to the Atlantic regions, but occasional trees have been found that are not only hardy but bear superior nuts in abundance. From these trees young ones are being propagated by grafting on native walnut stocks, chiefly of Juglans nigra, that are well adapted to the wants of planters in the Eastern States. Rush, Cumberland, Hayes and Pomeroy are some of the best. A few of the Pacific coast varieties seem to be suitable to eastern conditions, among them Mayette Frauquette and Wiltz.

The soil best suited to walnuts must be deep and rich, not low and wet, but well drained. Some bottom lands are very good if dry, but rich uplands of a rolling character are better.

The distance apart to plant walnut trees is about 50 feet. More would be better than less, because of the large size they finally attain. They will live and bear for a century or more, if planted in proper soil and climate and are well cared for while young. Walnut trees are well suited for planting among peach, plum and other early-bearing fruit trees, the latter being temporary and subject to removal when their room is needed.

Of the Asiatic walnuts there are several species, the

best being from Japan, but none of them have nuts of much value because of their thick shells and the difficulty in most cases of getting out the meats, although the flavor is delicious. Juglans cordiformis is the best, although not the largest of them. J. Seiboldi and J. Manchurica both make large and umbrageous trees and are very useful where shade trees are desired. All are reasonably hardy.

We have several American walnuts that make majestic trees, and their nuts are of excellent quality. The most conspicuous species is Juglans nigra, the common black walnut, and in stateliness and vigor of trees it excels all of the genus. While the flavor of its nuts is always good there are some of especial merit in this respect, and also in size of nut, plumpness of kernel and ease of extraction. A very few such have been brought to notice and will be propagated in due time.

The butternut, or Juglans cinerea, is another of our native walnuts that has very richly flavored nuts, but the shells are very rough and thick. If this species was crossed with J. regia the resulting hybrids would probably be of much value because of the hardiness of tree and superior flavor of the nuts.

### THE PERSIAN CYCLAMEN AS A BIENNIAL.

After numerous experiments during the last twentyfive years, I have proved, to my own satisfaction at all events, writes C. Blair in The Garden, that by far the best results with this grand plant are to be had by treating it as a biennial. I am aware that numbers of good gardeners disagree with this, holding that it is impossible to have really fine plants by this method. I am satisfied in my own mind, however, that with proper treatment quite large plants can be had in beautiful bloom fifteen or sixteen months after the seeds are sown. These easily beat the best old plants for size and substance of flower, while they also bloom for a longer period. Being very successful with this almost indispensable winter and spring flowering plant, perhaps a few notes on how I manage to obtain these satisfactory results may be of interest to others who admire the Persian Cyclamen.

In most cases seeds are sown at too late a date. Numbers of seed catalogues say that from October to March is the proper time. This may be well enough where a house can be devoted entirely to this plant, but for ordinary mixed culture it is much too late. I have always had the results by sowing from August 9 to 15.

Select fairly deep and perfectly clean seed-pans, those about nine inches in diameter being very handy. Crock with great care, and place some of the rough riddlings from the soil over the drainage. The soil should be a nice light, but fairly substantial mixture of three parts fibrous loam, one part flaky peat, one and a half parts sweet leaf-mould, and one part rather coarse, sharp sand. The addition of about half a part of crushed charcoal is a great help, as it keeps the compost sweet. Pass all through a half-inch riddle and mix thoroughly. Fill the pans to within about an inch of the tops, and make moderately firm and quite level. Scatter the seeds very thinly and evenly, and press down gently with a flat piece of board. Sieve a little of the soil and cover to a depth of about an eighth of an inch. Water carefully either by plunging in a bucket of tepid water or by using a very fine rose on the watering-can. Cover each pan with a sheet of glass, and the glass with thick brown paper or damp moss. Place in an intermediate temperature, and in about three weeks' time the first of the seedlings will be peeping through.

As soon as growth appears, remove the paper, but shade carefully from all sunshine. After all the seeds

of the choicest flowers not only perpetuates these colors have germinated, gradually remove the glass and get the pans set up on a shelf quite close to the roof glass. Here they should be kept all the winter, attending to them very carefully with water, but also taking care not to sour the soil by too frequent applications.

It is a mistake to attempt this too soon. Experience has shown me that February is early enough, and by then each little plant should have four leaves. Two-inch pots should be used, and these should be crocked with three or four small pieces of charcoal. A mixture similar to that advised for seed-sowing is suitable. Pot lightly and leave half of the little bulb above the surface, water, and return to the same temperature, shading carefully. Sprinkle gently overhead twice daily from the time of pricking off until September.

As growth starts in earnest, remove to a slightly lower temperature, and when the little pots are fairly well filled with roots (they must not be pot-bound), shift into larger pots. The very strongest may be allowed the 4-inch size, the others 3-inch or  $3\frac{1}{2}$ -inch, according to strength. Use much the same compost, only a little more peat may be given, also a 5-inch potful of bonemeal and the same of Ichtemic Guano to the barrowload of soil. Again pot lightly.

As the weather improves, admit air in increased volume and pay great attention to watering. Shade from all sunshine is imperative, as is the sprinkling overhead. Some good growers advise removing the plants to a cold frame during the summer; but, personally, I prefer a greenhouse stage. Tomatoes on the roof, not too thickly planted, afford the proper shade, and under these conditions the plants are always under the eye and thrive beautifully.

For the strongest plants provide perfectly clean 6-inch pots. For the medium specimens the 5½-inch size, and for the weaker ones 5-inch pots are best. The soil should consist of three parts best fibrous loam, two parts best fibrous brown peat, one and a half parts of sweet, flaky leaf-mould, and sufficient coarse sand to keep all sweet. Crushed charcoal may with advantage be added, while a 6-inch potful of bonemeal and a 5-inch potful of Thomson's Plant Manure or Ichthemic Guano must be allowed to each barro-load of the other ingredients. Use in a fairly rough state, as the idea is to provide a nice "springy" compost. Crock the pots with extra care and again pot lightly, keeping the bulbs half their depth out of the soil. Water carefully and keep rather close for a few days. As soon as the pots are well filled with roots, feed about twice a week with weak liquid manure and soot-water. A tablespoonful of Ichthemic Guano in a gallon of water is one of the best stimulants it is possible to have for the Cyclamen. Vaporise occasionally to keep down green fly and thrip, and in due course a fine display will be the reward for any little trouble incurred.

### GLOXINIAS FROM SEED.

Gloxinias may be had in bloom almost all the year by judicious management. When required for early flowering those that start first should be selected, carefully shifted into other pots and be kept near the glass as they depend much on light for a rapid and luxuriant growth.

Gloxinias can be flowered in the most satisfactory manner within six months from seed, writes H. F. East in *Canadian Florist*. Hence there is no longer the least temptation to propagate these plants by the lengthy and troublesome method formerly in vogue, especially as seedlings raised from a reliable strain produce flowers of the finest quality, both as to shape and style of growth. One great advantage to be obtained from seedlings is an

almost endless variety of color, for careful hybridisation but produces other fine shades also. Those who have never seen a large and well grown collection of seedling gloxinias have yet to witness one of the most striking

displays of floral beauty.

There are three distinct types of gloxinias and all need exactly the same treatment. The drooping strain is the oldest, and is gradually giving place to the horizontal, and the erect classes. They display their flowers to so much greater advantage than the drooping class that there is good reason for the increasing favor shown to them. It is not generally noticed that quite as much has been done for the foliage. The best strains now produce grand leaves which grow downwards and inwards in such a manner as almost to hide the pot so that its foliage has an extremely ornamental appearance. Those who care for a display at Christas can have it from seed sown in June, and further sowings late in the year should produce plants to flower successively in almost every month of the year.

The soil most suited to gloxinias is light porous compost of fibrous loam. If that is not obtainable leaf mould will answer, mixed with peat and silver sand in equal parts. New pots are advisable, or old ones must be thoroughly cleansed; free drainage is essential to success. Fill with soil to within half an inch of the top, sow thinly, and slightly cover the seed with very fine earth. Place the pots in a warm, moist position, carefully shad-

ing from the sun.

A light sprinkling of water daily will be necessary. Immediately some plants are large enough for shifting, lift them tenderly from the seed pan so as to least disturb the rest, and prick off into two inch pots in which the soil has a convex surface. Follow this process as plants are ready until all the seedlings have been transferred. When potting allow the leaves to rest on the soil, but avoid covering the hearts. On the first warm day give air on the leeside of the house, briefly at first and increase the time as the flowering period approaches. A clear space between each plant is necessary to prevent the leaves of neighbors meeting. The final shift should be into four inch or four and a half inch pots, unless extra fine specimens are required, and then one or two sizes larger may be used. An occasional dose of weak manure water will also be beneficial, taking care that the foliage is not wetted.

#### THE MIDSUMMER FALLOW.

By Karl Langenbeck.

Wheat has now been very generally harvested and the returns, in most all sections, are very gratifying. Where the harvest has not come up to expectations, the trouble has been due to specific causes in individual fields, rather than to general ones. Of the chronic causes, it is unnecessary to speak. But, many cases have come to my notice, in spite of good husbandry, where the wheat had fallen and the grain could not develop and ripen. The general conditions were, however, so favorable that fields in which there was trouble with weak straw, and which were predicted not to yield more than fifteen or eighteen bushels, gave thirty.

Men who succeed are always men who learn from failure. They are not those who throw up their hands and say, "farming is such a complicated business that you can not know; buy what fertilizer you can and let it go at that." Was your drainage right? If there is doubt about it, invest in some tile for the new field and put down a couple of lines. But get advice about it. Put in the tile where the labor will cost least and yet work it with a complete system to be carried out section by section in the future. If you own the farm, do some of this rather than spend all your money for a hand to

mouth fertilizer purchase. If you are a tenant, squeeze the owner to do this, or a part of it, for you. Don't let the demonstration of this failure slip by without pulling him up to do his duty in bringing up his land. If failure does not lie here, are the soil and subsoil of the new field you are plowing like those of the old? If so, and wheat is in the rotation, stop before you decide to put it in. You have time, before seeding, to get advice from your State authorities. Some other crop might be safer.

If you are plowing under a sod or manuring heavily, and your soil has not been limed for some years, remember that the condition under which decomposition bacteria, which convert them into humus, thrive best, is in land that is sweet. This is a most important matter for the summer fallow is short. The best men started in plowing at the earliest moment, even at the expense of inconvenience, to gain time for it. From the desirability of quick sweetening, so as to leave as much time as possible for undisturbed bacterial humus-making, the most soluble and quick acting lime is by all odds the cheapest, in spite of greater first cost. This is the hydrate. If properly spread on the sod and turned under, one third of a thousand pounds per acre dressing will be taken up almost immediately by the soil moisture and cut the acids. The rest will follow by diffusion and chemical action so quickly, even in dry weather, that carbonate can not be detected in 8 weeks time. Lime, when ground, or as hydrate, is best spread on a sod and plowed under with it. Or, if plowing is already done, it should be put on and harrowed in as soon as possible. If you have already manured, however, do not lime until after a rain has leached the animal matter into the soil. Else you will lose ammonia. Summer liming should be light, not over half the late Fall or early Spring practice.



SPECIMEN RHALIS LLABELLIFORMIS CHINA RATTAN PALM. GEO W. HESS, SUPERINTENDENT U.S. BOTANIC GARDEN, WASHINGTON, D. C., IN FOREGROUND.

# An American's Glimpses of European Horticulture

By Mrs. B. Hammond Tracy.

As for nature's flower show in England, it began as soon as we landed on the Devonshire coast. From Plymouth to London, the crimson clover gave us our first real idea of Crimson Clover. A deep rich crimson, with no mauve tinting, the flowers smaller and longer than our red clover. In this locality, the terra cotta soil, brilliant in the sun, and the rocks of even redder sand-stone were most unusual. Here would be a field all fresh green, with some spring crop, and perhaps next to it, one of these red fields ready for planting and the effect against a background of towering red rocks, with the blue sea in the distance, was indeed beautiful. These fields showed a most remarkable preparation, so thoroughly worked as to look as if they had been hand raked.

Fields and plots upon the downs, or rolling hills, as we would call them, were laid out as if by landscape architects, in plain geometrical figures, outlined by hedgerows. This was brought about by the division of property, in cases of large families, or many families in one location, and each has a little plot here, there and everywhere. One learns in England to appreciate the hedgerows. Every landowner, large or small, is so very proud of them, and they are cared for religiously, far more so than are the stone walls on estates in this country. There are hedgerows of Hawthorn, hedges of Spirea and of a low-growing shrub, which no one seemed able to name, but the branches intertwined themselves until it was quite impassable.

Nature is kind in England, for ivy covers everything. Trailing over unsightly tree trunks, over fence posts and carpeting the bare ground. It made one envious to see it growing so lavishly when we have to struggle so

hard to have it in our homes.

English landscapes are beautiful, but I cannot truthfully say that nothing so fine can be found in America. To be sure, England is older in the art of landscape architecture, and years and years ago, when her trees were planted, they were planted with a thought for the effect they were to produce. We wondered, too, why trees, almost without exception, were so symmetrical. This is due in a measure to the absence of sweeping winds and severe winters. So many of the plantings of trees, just out in the pastures and fields, were planted in round or oblong clumps. These clumps, with each tree a specimen, made a wonderful effect, as you looked over the downs, from some rise of ground. On investigation, we learned that these were planted in this manner for the effect they would produce. Government ownership of all wooded land must have great influence upon the preservation of these trees, and the natural beauties of England. All estates are bought separate from the timber. After a sale is made, the trees are appraised, and the buyer must then pay the government for the trees. Even shade trees above a certain size are liable to appraisal, and no tree may be cut down without a deal of red tape, in gaining permission to do so.

An afternoon spent at Ascot House, one of the estates of Leopld de Rothschild, was of unusual interest. It is to be expected that the horses will hold first interest, but next to the horses, I believe the natural beauties have second place in the hearts of the owner, who spends much time there. The estate at Gunnersbury is noted for the magnificent greenhouses, but at Ascot House,

nature is supreme.

The color effects of the trees in the wooded parts of this private park and around the lawns of the house were especially noticeable. The golden conifers, the white and red maples, nearby the white barked birch, trees of holly, the dark glossy green leaves next those of the variegated-leaved variety, planted among darker foliaged trees, made an effect which we cannot attain in America because of our climate and our winters. Many of these trees will not live here, though the varying colors might be produced with shrubs.

As we came near to the house, a by-path led to a crossing of two paths. At the intersection of the flag stones, or rather in one corner of the intersecting paths, stood an immense weeping birch, ages old. Trained branches formed arches over the four paths and the long trailing stems gave a tropical effect. One of the paths led to the winter tennis court, surrounded on four sides by a towering hedge of Box. Another led to the sun dial lawn.

Perhaps with the aid of keen imagination, a description may give a slight idea of this lawn. A plot of ground about 150 feet square, the hedge of the lawn tennis court for one background, and a lower box hedge on two other sides, the remaining side open to the main lawn and terraces stretching away in front of Ascot House. In the center of the Sun-dial lawn, the numerical figures of the clock were planted in box, each figure about one and one half feet high and five feet long—living, growing hours, and around this living clock, was the motto, also of Box, "Light and shade by turn, but Love always."

No one of our party seemed inclined to talk, as we looked at this truly beautiful bit of topiary work. It was an absolutely perfect spring day—the birds and every living thing seemed attuned, and these lines came

to me.

"The kiss of the sun for pardon,
The song of the birds for mirth,
One is nearer God's heart in a garden,
Than any place else on earth."



EAST TERRACE, WINDSOR CASTLE, LONDON, ENGLAND.

All visitors to England are privileged to visit certain portions of the grounds about Windsor Castle, but we were especially favored as we had for our guide, the King's gardener, and his formidable looking bunch of keys, opened many doors closed to visitors. The greenhouses were regal in more than name. Those for the finer flowers were built in the most modern and magnificent style. The floors were laid in mosaics and every inch of space was immaculate. Two houses will long be remembered. The croton house was a marvel of coloring, every sort and color of croton, grown in the finest way, but the intense heat made it impossible to stay long. The other was arranged in a color scheme one does not often see in a greenhouse. All in shades of rose and purple, from the dainty schizanthus, the coral begonia, bouganvilleas against the side glass and

banked in the corners, while from the back of each, on rows of shelves (for the plants were all grown in pots) trained fruchsias were growing. Just the common everyday fuchsias, both single and double, trained up the sides until they reached the roof and then grown along a trellis to the center of the roof. The green foliage massed against the glass and the great trusses of purple and rose

bloom hanging down.

There were greenhouses for grapes, figs, strawberries and nectarines, all showing the same expert cultivation. The kitchen gardens were most interesting, and here as in every garden of any size, we saw the fruit trees trained against the garden walls. Peaches, cherries, apples and plums, immense trees and all heavily fruited. For protection against what frost they have, large hooks were fastened into the wall, from which canvases were hung when needed. The pear tree pergola, surrounding a portion of the vegetable gardens was a feature. Pear trees, with trunks measuring a foot or more in diameter. were trained over an iron trellis about five feet high, and the trees were set full of fruit. In the hot beds, we found our sweet corn, growing as a "specimen," which would soon be transplanted to the flower garden. In several other localities we saw it growing in this environment, as we would use the tall ornamental grasses.

The grounds about the castle are kept most immaculate, and as we walked toward the Long Walk, we had glimpses on all sides of the two hundred and forty acres of handmown lawn, mown either by hand or horse machines.

Gatton Park, the home of Sir Jeremiah Coleman, is considered one of the most naturally beautiful places near London. Historically famous even before it was given to Anne of Cleves after her divorce from Henry the Eighth, and later the home of the Countess of Warwick, the beauties and attractiveness are not easily described. Three thousand acres given up to such an artist in landscape gardening as was "Capability Brown" would of necessity be productive of magnificent effects, but any one looking for formal landscape effects would be disappointed. Many minds and hands have had a share in achieving the present natural beauties, which have always been the prominent motive. The noble clumps of trees on a distant hill, the massed foliage and the sweeping lines of the surrounding country, give an unusual beauty to this country seat.

As we stood on the broad terraces in front of Gatton Hall and looked across to the wonderfully green wooded hills, Sir Jeremiah told us the history of three lakes, which were in our line of vision. The river Mole runs through the estate and "Capability Brown" caused the water to be piped under ground to the first lake, then again under ground to the lake in the Japanese Garden and still under again to appear in another much larger lake far off to our left. Looking across this lake, we saw the hills from which the world's supply of fuller's earth is taken.

One might wander for hours through the different paths and walks, either to the typical English chapel, where the family attend church each Sunday or to the greenhouses where the famous Coleman orchids are grown, to the Japanese Garden, or to the walled in Rose Garden, but everywhere the same tone of natural beauty would impress you. Whatever had been done, whatever device used to produce the desired effect, the result was purely natural.

In the lightly wooded parts of the park, as in so many of the park-like estates, we came upon such pictures of naturalization, here a perfect sea of blue bells and peasant-eyed narcissus, or sheets of purple crocus near great patches of pink hepatica. Honesty, with its rich violet and white blossoms was prominent in many places and

the hardy yellow allyssum made a fine carpet beneath

the purple Iris.

Ruskin said that gardens as well as houses should harmonize with the surrounding country, certain hues for the simple blue country of England, others for the glorious country of Italy, and in an Oxford lecture we find this sound advice—"bluish purple is the only color which nature ever uses in masses of distant effect, with the pale shades of rose or primrose to give undulations of color." This seems everywhere to be the key-note of most English plantings. Even the shadows are English shadows, blurred, uncertain, blue. To be sure there are many exceptions, but one sees such an array of these blue flowers, that envy vies with admiration, for not many blue flowers thrive with us.

In the R. H. S. Gardens at Wisley, the deep blues of the Larkspur, with long lines of Madonna lilies, made a picture well worth copying. Here also the Iris Orientalis with spirea and day lily, planted around a natural pond, was ideal. Madonna lilies along a pergola, over which climbed deep red roses, gave an admirable suggestion.

Gardens of one color require a deal of thought in the planning, but one lovely riot of color was produced by shades of mauves, purples, cool pinks and white. That of Lord Brownlow at Ashridge, purple and blue of Delphiniums, with later summer blooming of blue salvias, purple clematis, purple phlox, purple gladiolus.

This combination of purple and blue does not appeal to some, but a garden in yellow, pink or rose might be

worked out, avoiding any possibility of monotony.

At the mention of Iris, an endless range of color pictures comes to mind. Lavenders, blues, bronzes and yellows. One beautiful border planting was made up of these shades of Iris, and the columbine in the same shades, with tufted purple pansies carpeting the foreground. The columbines blossomed above the Iris and gave the planting a light airy look.

The marvels of lilacs which the late Victor Lemoine gave to the world, provide a sumptuous background for all the late flowering tulips, and were well used in English gardens and parks. Bushes laden with lilac blooms, surrounded at the base with plantings of cottage or Darwin tulips in pink, lavender or light yellow, were seen in the Hampton Court gardens.

Leaving England for Germany, the direct route to Hamburg has very little of interest from Flushing, Holland, across miles and miles of flat country, acres and acres of grass land with very few settlements. These tracts of land are traversed in many directions by roadways, long and straight as turnpikes, and bordered on each side by poplars. The effect of these long avenues was most unusual, for there were few other trees in sight. We could tell when we were approaching any city or town, by the large plots of small settlement gardens, which were intensely interesting. Apparently the ground was set apart by the city governments, for the use of the laboring classes, on which to grow their vegetables. Nearly every plot had on it some sort of shelter, either a rude shack, or a really artistic little garden house. Flowers were growing in many of the plots, and the tree roses were seen everywhere. In these rural districts, the fruit trees, planted along the highways, as are our shade trees, are under municipal control, and when ripe, the fruit is sold, on the trees, at auction.

Horticultural interest at Hamburg was mainly centered in the suburban districts. At Halstenbeck, about nine miles from Hamburg, are the largest tree nurseries in Europe, and it looked as if here might be grown trees enough to reforest the world, but the United States takes practically the entire stock grown on these 20,000 acres

of seedling trees. We motored through about 400 acres. In different sections were storage houses marked for our different states, and in the vicinity of each building were grown trees best suited to the climate of these states.

As you know, a seedling tree is a most infinitesimal thing, and the weeding process is of great importance. This weeding is done by women and from six to eight women are watched by one man, who does nothing but watch. Here, as all through Germany, we were constantly reminded of the rhyme,

Germany for the men, England for the dogs, America for the women.



THE FAMOUS PALM GARDEN, FRANKFORT, GERMANY,

I believe no one visits Hamburg without hearing of or visiting Ohlsdorf, the largest and most beautiful cemetery in the world. This wonderful God's Acre is the pride of Hamburg. It was planned when landscape architecture, in connection with cemeteries, was unknown except in America. Two thousand acres given up to beautiful out-of-door pictures. Even the graves of the poor are skilfully planted to avoid all barrenness. As you walk along the winding paths and drives, trees, shrubs and flowering plants attract first attention and for long spaces there is no sign of grave or monument. The collection of conifers is very rich and is arranged according to the country of its origin. Flowers bloom all the year round, from the Christ's Rose in the snow to the late Dahlia and Chrysanthemum.

Leaving Hamburg for Quedlingburg, the beginning of the seed producing district of Germany, you realize why it has been called the land of glorious flowers; also why Billings said, that if you should put an Englishman into the garden of Eden, he would proceed at once to find fault with it; put an Irishman into it and he would want to boss it, but put a German into it and he would begin at once to plant it. This spirit of planting is everywhere present.

In Brunswick, a city of 144,000 people, the main rail-road station stands on one side of the large city square. As you approach the station from the street side, you see only the upper story and roof, the lower part is hidden by the gardens. Entering these gardens through great gates, fine specimens of palms, bays and shrubs are seen. The porches and loggias are all decorated with palms and bays and in the midst of all this greenery and bloom, for it was Rhododendron time, lunch was served to our party. With the garden all around us, and the busy city streets in the distance, we had no consciousness of the puffing engines in the train sheds behind us.

Through all the western part of Germany, the banks of the railroads are heavily grassed over, not bare gravel

banks, as so common with us, and all through the grass, the blue salvia, the bright red poppies and the bachelor button blooms are seen. We were truly in Emperor William's country. It was a pretty sight but it was beauty with a dangerous element, for this flower beauty reaches the farms of the peasant farmer and literally ruins his crops, especially any hay or rye fields, for the stock will not touch the poppy. It is even worse than our daisy.

As we came nearer to Quedlingburg, in Prussian territory, we saw the poppy under cultivation in the market gardens. All gardens are planted in rectangular plots, and the poppy plots, one blaze of red, with scarcely any foliage showing, gave a very gorgeous patch-work quilt effect. They cultivate the poppy for the medicinal qualities, and if gathered before the seed ripens, all well and good, but disaster in the adjoining fields, if they ripen before harvest.

Quedlingburg, in the heart of the Hartz mountains, and only a few miles from Thale, is a fine admixture of the ancient and modern German city. It is very popular as a summer resort and doubly attractive because of the mountains and the flower farms. The parks are richly planted with Rhododendrons, and the inevitable pansy is everywhere.

The electric poles are tastefully decorated with circular "window boxes," bright geraniums and trailing vines, just out of the street urchins' reach, contrasting nicely with the dull green of the poles. In this great seed producing district, all kinds of flowers are grown for seed, but pansies by the yard, by the acre, yea, by the mile. In seed catalogues, the name of Roemer stands for pansies, and we walked over a few of the



ONL OF THE PLANT SHOW HOUSES, PALM GARDEN AT FRANKFORT.

fields where the Roemer pansies were grown, led by Mr. Roemer, blind now after years spent in perfecting the pansy. He would bend over some choice variety and tell us the name and its good qualities, then turn to his son, who guides him, and ask for corroboration.

Erfurt, a short distance from Quedlingburg, was, in the middle ages, one of the wealthiest German cities. It now calls itself the City of Flowers, although its market gardens surpass any in the world. In the beauties of this modern city with the fields of flowers on every side, one forgets that it was here that the monk Luther struggled through to his God. Just a little way into the fertile lowlands, the celebrated cauliflower is grown, and the ditches themselves yield the equally famous water cress. I think one associates Erfurt especially with vegetable seeds but the flower seeds are really its greatest industry. It was flowering time, with many seeds ripening, so that we had a fine opportunity to see the seed gathering.

Bingen, surpassingly fair Bingen, came in our line of travel, from Germany to France, and we were awed, as every traveler must be, by the beauty of the scenery. The peculiar deep tone of the green foliage on the heavily wooded hillsides contrasted beautifully with the gray green foliage of the vineyards, and this succession of vineyards, separated occasionally by these wooded hills, continues along the shores of the Nahe as far as Frankfort on the Main. Here no one fails to visit the Palm



VIEW OF GARDEN, PAUAGE DU PETIT TRIANON, VERSAILLES, FRANCE.

garden, which, I believe, is considered the finest in Europe, if not in the world. Certain it is, that here are found specimens of Palms, of wonderful growth and without mark or blemish. This Palm garden or park, is owned and controlled by private individuals, and this accounts for the high character of the place. Absolutely clean in all its phases, and with model cafes, and music such as one hears only in Germany. No rag time, but really good music which every German loves and appreciates. The whole tone of the place is highly educational. Trees are all labeled, greenhouses are models of care and culture. Each one given over to some special culture, one for the orchids, another for ferns, near by one for begonias, and bedding plants. The one devoted to Aquatics and tropical plants, was the most artistic public greenhouse that it has ever been my pleasure to visit. No crowding together of specimens, hanging baskets, with trailing vines placed so as to give the best effect. But the discordant note was the carpet bedding, in which elaborate scheme, every shade of red was used, and no amount of luxuriant green could drown the discord.

The Palm garden, or rather the Palm house, in which grew these magnificent palms, reaching to the roof of the great dome, was immaculately clean, and not a bit of soil showing. Every part of the planting surface was covered with a luxuriant growth of the brilliant green Salaginella. With the cascades of running water, the blooming orchids hanging from the roof, the statuary, partially hidden behind some palm, one thought only of the conservatories of the story books.

Horticulturally, one associates Nancy, France, with the name of Lemoine, and the Lilacs, Begonias, Syringas and Gladioli he brought to such perfection. The work is still carried on by the son. Here in Nancy, are also found magnificent specimens of trees, towering testimonials of the work of Stanislaus. The Pepiniere Gardens, or nurseries, make one of the most wonderful parks to be found anywhere in France or Germany. Planted originally by Stanislaus, as an educational nursery, years and years of growth have made it a park with a character all its own. It is to Nancy what the Bois de Bologne is to Paris, but the natural beauties and the trees are far better.

In a horticultural way, one looks to Germany for seeds,

to Holland for Bulbs, to France for Carnations and Chrysanthemums, but it is to Belgium one must go for Orchids, Palms and Bay Trees, Rhododendrons and Azaleas, and for the bulk of hard wooded plants for forcing. The nurseries present much the same appearance as our American nurseries do. Wonderful specimens of orchids were seen, but the manner of protection from theft of cuttings at the establishment of the millionaire grower, was even more interesting than the orchids themselves. We were escorted by wooden-shod employees, hustled through each of the 20 houses at double quick, each house unlocked at entrance and locked immediately as we passed out. Entrance to the grounds was guarded by two immense black dogs, each chained. Imagine such a state of affairs at any of our American establishments, and in justice to other foreign firms, it is a pleasure to say that this one stood alone for such methods. Horticultural militantism might have prevailed at some time in Belgium, to have made such measure necessary.

In strong contrast to this reception, was that given us at the home just across the street, in a quaint Belgium cottage. In the little tea house, near the entrance to this cottage, over which hung the heavily fruited branches of an immense cherry tree, we had Belgian wine, home brewed, and served in real Belgian glasses. Not an hour later, we had old English tea, in the garden of the most modern home imaginable, and the extremes added to the fascination. In one we were miles and miles from home, and in the other, we seemed to have touched American soil. Modern methods of cultivation in the fields prevailed, acres of Azaleas, Bays, and Rhododendrons, being watered by the Skinner system.

In Ghent we were impressed with the modern aspect of everything, and yet a little turn into a side street, and we found ourselves in the quaintest, old-fashioned localities. In Belgium, as in Germany, this admixture of the



INTERIOR, GAR DU SUD, GHENT, BELGIUM

ancient and modern was so noticeable, but, as mentioned before, there was little of old methods in plant or flower culture. Arriving from Paris, at the Gar Sud, in Ghent, one has such a delightfully restful surprise on entering the station. Wonder at the immensity of the station and its up-to-dateness seizes one, but wonder is soon lost in admiration. It is a long walk from the train to the waiting room, but as we enter the court we come upon a most unusual plot of ground, about 200 feet long by 60 feet wide, planted with Palms and Rhododendrons, with beds of plants, all growing above a lawn-like surface. Growing perfectly, too, for light, air and sunshine came through the glass of the roof. The same arrangement might find an ideal setting in our American terminals, but there, stations, train sheds and courts were very neat and clean, for all trains were electrified.

Orchids and lace grow well together in Bruges and we saw ravishing specimens of both. To me, Bruges seemed the most charmingly restful of all places. Its art treasures, its cathedrals, the ancient moats and canals, the dear old lady lacemakers, the quiet elegance of its homes, made a combination found in few small places. Horticulturally, interest centers around the orchids and bay trees as grown at the Sanders establishment, just beyond the city gates. Here one sees bay trees by the mile and orchid houses by the acre. The ladies of our party left Bruges with very sizable boxes of Orchids from these famous houses, and the contents of one box reached America, 14 days later, in fine condition.

Space forbids that I tell of the other good things that came our way, for the treasures of the flowery kingdom were not the only treasures placed before us. At each and every place, host and hostess were mindful of our material needs, and left nothing undone that would add

to our comfort or pleasure.

But as we left Ostend for England, and a few days later, Liverpool for America, tired to exhaustion of "seeing things," and yet filled with wonder and admiration at the progress of things horticultural in foreign countries, we remembered with pride, that it was our own Beecher who said, "flowers were the sweetest things God ever made, and forgot to put a Soul into." And as we felt the sea beneath us, we could have sung with a will, our own Van Dyke's chorus,

Then it's home again and home again, America for me,
In the blessed land of "room enough,"
Beyond the ocean bars
Where the air is full of sunshine,
And the flag is full of stars.

#### GARDENING IN THE MIDDLE WEST.

The eighth annual horticultural show under the auspices of the North Shore Horticultural Society and the Garden Club of Illinois, was held on July 22 at the Durand Art Institute of Lake Forest, Illinois, and was a notable affair in many respects.

Of all the many beautiful North Shore towns of busy Chicago, Lake Forest is the most distinct. Different from all others in the way it is laid out, the streets are more like winding driveways through a huge, beautiful park and located on the steep bluffs of Lake Michigan,

fully 100 feet above it.

More millionaires with large estates are located here than in any other town in the Middle West, and here flourishes a most progressive horticultural society full of live men, among whom E. O. Orpet, as superintendent of "Walden," the Cyrus H. McCormick estate, with a steady force of over 30 men under him, is leading; and at his side are E. Bollinger and John Tiplady. The latter was in charge of this year's splendid show.

There were thousands of Gladioli to greet one on entering the large hall. Among them were the newest and best varieties, but none more admired than the grand novelty Mrs. John Pendleton, Jr., with its large orchid flowering blossoms of delicate pink and deep red blotches in the throat and lower petals; you can't help but fall in

love with this charming sort.

The collection of perennials carrying off the silver medal gave the visiting florists, of which there were quite a number, a better idea of what can be done in this line than a whole year's study of books. Here they were, perfect specimens of each sort desirable for our climate and location.

The good gardener is not the one who knows just all about Roses, how to handle them under glass in factory

style, so as to get the greatest amount of flowers, or the one who recognizes nothing outside of Carnations as True, we have these men, and let us worth growing. give all credit due for getting the most dollars out of what we term as "the business," but don't let us on that account think the less of the man who loves plant life to such an extent as to partly, at least, be unconcerned about the money part, who will tenderly and patiently nurse and care for that Gloxinia, Gesneria or Begonia from the time when the seed is sown until the plants are in full bloom. You will find most of these men among the private gardeners, and the more we specialize as commercial florists, the more we will confine ourselves to the handling of just a few sorts of plants to be grown and the more we will look to the private gardener to be the real gardener.

Compared with the East, the Middle West up to a few years ago could pride itself on but few places where the services of good gardeners were demanded on private estates, or appreciated; but all that has been changed. The present generation wants the best, and is willing to pay for it. Good gardeners from all over have been invited here, and beautiful grounds are the result. exhibition of grand flowers held here last week therefore deserves of more than passing notice. It showed the progress made within eight years in horticulture in outof-door flowers in particular. It proved that a number of earnest and up-to-date men are at work here to produce the best stock possible. They are educating themselves, and a whole host of others along with them, and before long other towns all through the Middle West will get into the same spirit which exists here in Lake Forest, and whether directly or indirectly, the local florists are the ones more benefited financially by these shows than any one else, and therefore it is their duty, and they should be liberal minded enough, to support and encourage the men making these shows possible, or who are connected in any way with them.—Fritz Bahr, in

#### THE MAN WHO WINS.

Florists' Exchange.

The man who wins is the man who works—
The man who toils, while the next man shirks;
The man who stands in his deep distress
With his head held high in the deadly press,
Yes, he is the man who wins.

The man who wins is the man who knows The value of pains and the worth of woes, Who a lesson learns from the man who fails And a moral finds in his mournful wails;

Yes, he is the man who wins.

The man who wins is the man who stays In the unsought paths and the rocky ways; And, perhaps, who lingers now and then, To help some failure to rise again.

Ah! he is the man who wins.

And the man who wins is the man who hears
The curse of the envious in his ears,
But who goes his way with his head held high
And passes the wrecks of the failures by—
For he is the man who wins.

—Harvester World.

# ARE YOU A CHRONICLE SUBSCRIBER?

If not, remit one dollar to Gardeners' Chronicle of America, Madison, N. J., and the Chronicle will come to you for one year.

# George W. Vanderbilt, Pioneer in Forestry

By Overton Westfeldt Price.

Our national problem in forestry depends chiefly upon the care given to private forests. The men in the United States who first applied practical forestry to their holdings were in a very real sense public benefactors, for they created those object lessons in the methods and the results of forest conservation which were absolutely essential to its wider application to private forest lands.

First among the pioneers in the practice of forestry on a large scale in America was the late George W. Vanderbilt. It was he who, nearly twenty-five years ago, purchased a great mountain forest tract on the headwaters of the French Broad River and its tributaries in Western North Carolina, and acting under the advice of Gifford Pinchot, then a consulting forester, at once put his forest holdings under conservative management. In those early days it called for a man of much vision and of strong convictions to adopt the practice of forestry. Those were still the days in which forestry was looked upon with indifference by most Americans, and as a chimerical and fantastic theory by not a few. The practical possibilities of forest conservation as a sound business investment for the forest owner had gained little hold on the public mind and it is exceedingly probable that Mr. Vanderbilt acted in the face of the remonstrance of his business advisers, when he set out to demonstrate that forestry can be applied successfully to private lands, with benefit both to the community and to the man who owns them in fee simple.

Two definite and resolute motives actuated Mr. Vanderbilt in adopting forestry and in continuing to practice it unflinchingly on his forest holdings of considerably over one hundred thousand acres, up to the time of his death. The one was the belief, which has been fully justified by the results which he attained, that Western North Carolina with its rich hardwood forests, and its remarkable possibilities for industrial growth, offered an exceptionally favorable opportunity for good returns from timber growing. The other was the conviction that the ownership of forest lands entails certain definite responsibilities to the public; for Mr. Vanderbilt was one of those who held that the private ownership of any resource necessary to the general welfare carries with it the moral obligation of faithful stewardship to the

public.

I recall an occasion a few years ago on which I heard Mr. Vanderbilt, usually a man of much reserve, speak out from the heart his admirable conception of his duty as the owner of Pisgah Forest. The question of the terms on which a pending timber sale should be made, was before him for decision. He faced the alternative of requiring that cutting under this sale should follow the methods of practical forestry, or of waiving all restrictions looking to the protection of the forest. He was reminded that the latter method would naturally be more attractive to prospective purchasers, and that its adoption would probably result in a much higher price being paid for the timber.

"I have stuck to forestry from the beginning," said Mr. Vanderbilt warmly, "and I shall not forsake it now. For me to impair the future usefulness of Pisgah Forest in order to somewhat increase present revenues, would be bad business policy. But apart from that, it would be bad citizenship. As I see it, no man is a good citizen who

destroys for selfish ends a growing forest."

Such was the sincerity and the deep sense of obligation to his fellow men which characterized Mr. Vanderbilt's policy of forest conservation. Pisgah Forest, its mountain slopes clothed in an unbroken mantle of protective tree growth, is his monument. He transformed it by nearly a quarter of a century's efficient fire protection, from a forest characterized by scanty young growth, thin humus covering, and impoverished soil, as the result of injury it had suffered in former years from excessive grazing and recurrent fires, to one whose silvicultural condition is probably unequaled elsewhere in the Southern Appalachians. The forest mould has again accumulated, and a young growth of remarkable density has sprung up under the old trees, and in the rich poplar coves of Pisgah Forest and on its slopes and ridges as well, has taken place with the unbroken years of fire protection, a remarkable restoration to primeval forest conditions.

If a man wants to profit by probably the most forcible object lesson in the results of forest conservation which America contains, he needs only to visit one of the many forest tracts of the Southern Mountains on which nature is struggling against the triple combination of fire, unregulated grazing and destructive lumbering, and then to feast his eyes on the dense and thrifty growth of Pisgah Forest, with its thickets of hardwood saplings, its deep humus layer, and its rare freedom from disease.

But Mr. Vanderbilt did not only preserve the productive capacity of Pisgah Forest. He made it, under a broad and careful plan of development, one of the most easily accessible mountain forests in the United States. In the old days, an excursion into its recesses entailed for its accomplishment an unfailing reserve of enthusiasm, and the vigorous co-operation of a sure-footed mule. For when Mr. Vanderbilt acquired it, Pisgah Forest was a wilderness, and the only means of penetrating it was over a few dim trails occasionally used by the mountaineers, who dug, "sang," grazed cattle, hunted, fished, and possibly "stilled" now and then within its boundaries. Today good roads run up each of the larger valleys, and a network of well graded trails leads from them to all parts of the property. The aggregate length of the roads and trails probably exceeds 200 miles.

The crowning achievement of Mr. Vanderbilt's vigorous policy for giving Pisgah Forest so complete a system of transportation as to make it practically a park, was the construction of sixteen miles of automobile road, which make it possible to reach the heart of the tract in a couple of hours from Asheville, and to enjoy a superb panorama of mountain scenery on the way. At its highest point this road reaches an altitude of five thousand

two hundred feet.

Biltmore Forest, the second large division of Mr. Vanderbilt's forest holdings, lies on both sides of the French Broad River near Asheville. As the result of its accessibility, it suffered far more severely from destructive logging than did Pisgah Forest at the hands of its former owners, most of them small farmers, who found a ready market in Asheville for firewood, and for saw logs at local mills. Cutting had been done with an eye single to immediate returns and wholly without regard for the safety of the forest, and fires had been permitted to burn unchecked. There had been much injudicious clearing of steep upper slopes, which, after a few years of unprofitable cultivation, were generally abandoned to erosion, which in the loose soil and exceptionally heavy railfall of the region occurs with remarkable rapidity. But here again forest conservation for nearly a quarter of a century has worked a wonderful change. Stock have been wholly excluded from the forest, careful improvement cuttings aimed primarily at the betterment of its silvicultural condition have been carried forward, and cleared lands unfit for agriculture on account of steepness and thin soil have been planted to trees. Biltmore Forest is today full stocked with a thrifty stand, and producing a steady and increasing yield of firewood and small timbers. The forest plantations set out on denuded lands, which cover in the aggregate about four thousand acres, are among the most successful in America; and Mr. Vanderbilt had the well-earned gratification of seeing harvested as the product of careful thinnings, logs suitable for box boards, grown from seedlings planted as the result of his forethought over twenty years ago.

I do not want to close this brief account of the first great object lesson in forest conservation in the United States on private lands without a reference to the personality of the man who created and enriched it with each year of his faithful stewardship. Mr. Vanderbilt possessed singular gentleness and nobility of spirit, and had an intense and abiding love for the world out-ofdoors. As his life lengthened, he was drawn more and more to long sojourns at Buck Springs Lodge, a log structure within a mile of the top of Mount Pisgah, and probably no scene was so dear to his heart as the view from the lodge of the green gorge of Big Creek, winding down among a jumble of mountains to the wide valley of the French Broad with the outlines of the Blue Ridge beyond. During the last years of his life more and more of his pleasure was gained from landscape architecture, of which he was a faithful student and for which he possessed rare power. He laid out in the vicinity of the lodge trails carefully designed to reveal exquisite glimpses of the mountains, and these he developed still further by skillful cuttings which he termed appropriately "Painting with the axe." It was a wholesome sight to see this man of great possessions supervising the development of vista cuttings for the disclosure of some view whose latent possibilities his skilled eye alone had detected, and it was characteristic of him, to judge no such achievement complete until it had contributed to the enjoyment of his friends.

The range of Mr. Vanderbilt's charities in the mountain community which owes so much to him, he scrupulously withheld from common knowledge. But the largest of his many contributions to the general welfare hes in the great and wholesome lesson taught by the activities of his vast estate. For not only did he demonstrate the methods and the practical advantages of forestry for private owners; he was also a pioneer in scientific agriculture, in horticulture and in model dairying. The stimulus afforded by his example towards improved agricultural methods in the South is beyond all estimate.

George W. Vanderbilt earned, and no doubt he will receive, a high place in permanent public recognition of his distinguished public service. Were his admirable conception of the moral responsibility which accompanies the private ownership of natural resources the rule instead of the exception, the conservation problem in America would be already solved.—American Forestry.

# NAMING AN AUTOMOBILE.

A prominent motor car manufacturer in the midlands had the idea of naming his cars after flowers. Said he to a friend:

"I think of calling that new car over there," pointing to a huge red limousine, "the Crimson Rambler."

But his friend who had been out in the indicated car, replied, kindly:

"Why not call it the Virginia Creeper?"

### LICHENS AND THEIR VALUE.

You have seen, on rocks and trees in wild places, certain flat, papery or leathery objects of various colors, that resembled you hardly knew what, unless you are a botanist. You have probably seen them too on soil, and so loosely attached as to become separated at the lightest touch, while some on the rocks, apparently hardly more than spots of color, seem almost imbedded; and on old houses and fences and in exposed situations generally at all seasons. These blotches are living, growing plants. They are lichens. Most fascinating plants they are too, because of their wide range and peculiar mode of life.

Sometimes rocks or large boulders are so covered with various kinds that they present a curiously mottled, often an encrusted appearance.

I remember hearing the driver of a stage coach say, as he pointed to a well-known lichen hanging in festoons from the branches of a tree, "Yes, sir, that stuff up in those oaks will show you how high this river rises sometimes."

How much more interesting many a drive would be, if we knew a little more of the world about us.

Lichens are world-wide in their distribution. In the extreme north they form the most advanced outpost of vegetable life. They are found on mountain tops far in advance of other vegetation, and they abound in the hottest countries. They are the pioneers of the vegetable world, subsisting largely on what the wind and the rain can bring them.

They are most frequently seen on the weather side of rocks, trees, fences and old houses. This fact has been utilized by explorers and trappers to guide them through unfamiliar places. One kind grows on the leaf of the coffee plant, and one found in California grows on the boxwood leaf. Both probably derive some nourishment from the green part of the plant, and are therefore to some extent probably parasitic. A few are marine, occurring on rocks and rocky ledges that are submerged at high tide.

They seem to disappear before the advance of civilization, and are comparatively rare in parks, near dwellings and along much traveled roadsides. Some authorities say they are sensitive to noxious gases, smoke and dust. They are little affected by drought or changes in temperature. During dry weather or dry seasons they lie dormant, but with the first rainfall they change from brittleness to elasticity, and the colors brighten.

As distinguished from the mosses, to which they are not related, they lack leaves and the characteristic green coloring. They are lower in the scale of plant evolution than the mosses.

A lichen is not a single plant unit as is the oak or the fern, but a composite organism made up of an alga and a fungus. The kinds of algae vary in the different lichens. Most of them, however, are the simplest forms, known as the single-celled algae. Most of the fungi belong to the group known as sac-fungi, because they form their spores in little sac-like structures. The fungi are dependent upon the algae for their organic food, and the algae are protected by the fungi against loss of moisture, and supply to them certain necessary chemicals—a life retionship for mutual benefit; one supplies what the other lacks, making it possible for two organisms to thrive where neither could exist alone. As a result of this partnership, the lichens are wonderfully successful in the struggle for existence.

We must not confuse this mutualistic relationship with parasitism. In that there is also an intimate biological relationship, but one organism (the host) is injuriously affected, while the other (the guest) is benefited. The host plant always thrives better without the parasite, as

in the case of the oak and the mistletoe.

These plants exist in three general types or forms, fruticose, foliose and crustose. The fruticose are more or less branched and filamentous. The widely distributed beard moss (Usnea bankata) on trees, on oaks especially and less commonly on posts and fences, is typically fruticose. The foliose (leaf-like) are thin, papery and flat, and are rather loosely attached to the bark. They are also found on rocks and fences. Iceland moss obtainable in drug stores is an example. The crustose appear to be mere discolorations.

Lichens are indefinitely perennial. It is probable that most of these on large mountain rocks, or on aged trees, are hundreds of years old. In the reindeer moss of the tundra there is a continuous growth at the top, while the

basal portions are as constantly dying.

The growth of many is extremely slow, some taking years to arrive at the spore bearing stage. One variety has been known to grow for forty-five years before pro-

ducing the spore bearing structures.

Any bit of lichen will develop into a new plant provided the part includes both partners. In fact a lichen dried so thoroughly that it may be powdered, will renew its activity as an indefinite number of plants, if the powder is scattered in a suitable place and kept moist. Furthermore there are special propagative organs called seredia, minute bodies composed of both alga and fungus and usually formed along the edges of the thallus. To the naked eye these clusters appear as slightly raised specks, or as a white fringe. The individual soredia composing these clusters are too small to be seen by the naked eve. Other propagative structures are the apothecia, small cupshaped or dome-shaped growths about a quarter of an inch in diameter, and generally slightly raised, occurring on the surface in the foliose forms, and on the ends of the branches in the fruticose. In the lichen known as red cup moss, the bright red spots are the apothecia. These tiny cups belong to the fungal portion.

The following are a few of the more interesting species with a brief reference to their real or supposed economic

value.

No lichen has been of greater industrial value than dver's moss or dver's fungus, which vields a dve known as orchil, cudbear or litmus. Orchil proper, a rich purple dve, is obtained from Rocella tinctoria, a species common in the Mediterranean countries, Western Mexico, Central America and in warm countries generally. The blue and the purple of the Old Testament (Ezekiel XXXII, 7) is supposed to refer to the dve obtained from this plant. It was also used by the Greeks and Romans, and was an important article of commerce. Other lichens yield various dyes. Cudbear, from Lecanora, is much used by the peasantry of Northern Europe for dying woolen cloth scarlet or purple. Many species yielding red, brown, purple and vellow dves have been, and probably still are used as domestic dyes by the natives of the regions in which they are found. The coloring matter is in the acids contained in the plants, but little is definitely known of their chemistry. Another interesting form is the beard moss found chiefly on oaks. It hangs in beard-like tufts from the branches, and varies in length from several inches to several feet. It serves as food for certain wild animals, and also sometimes for domestic animals. During the early middle ages this "moss" was much used as a remedy for insanity, epilepsy and other nervous disorders, but to be efficacious it should be gathered from the skull of a criminal that had I een left hanging on the free.

Reindeer moss (Cladonia rangiferina) is the chief food

of the reindeer. Even the Laplander in time of need does not disdain to prepare it for his own meal. Of all the lichens this is doubtless the most useful. In winter the animals scrape away the snow, and feed upon this growth.

In recent years, in Scandinavia and Russia, alcohol has been distilled from reindeer moss. Formerly another lichen, Sticta pulmonaria (lungwort), was much used instead of hops in brewing. A certain Siberian monastery was celebrated for beer that owed its flavor to this lichen. A small greyish or nearly white lichen, known to botanists as Lecanora esculenta, and called in Western Asia "earthbread," is believed by some to have been the manna of the Israelites. In times of drouth and famine, it has served as food for man and beast on the arid plains of Northern Africa, Eastern Europe and Western Asia. It grows unattached or very lightly attached to the ground in the form of irregular lumps, sometimes six or seven inches thick.

Iceland moss is still highly prized as an article of diet, especially by convalescents. The Swedish peasantry make a bread of it and it often forms the chief food of the poor Icelander. A lichen commonly known as "rock tripe" (Umbilicaria) has been used as food by hunters and trappers of the far North where these plants are abundant on rocky ledges. It is stated that the members of the Franklin polar expedition subsisted on this lichen for some time.

Peltigera canina formed the basis of a one-time celebrated cure for hydrophobia. Ramalina reticulata is another attractive lichen, known as "old man," "old man's beard" and sometimes "beard moss,". It differs from the true beard moss with which it is often confused. The thallus branches are flattened while those of the true beard moss are cylindrical. It is abundant on oaks along the California coast. "Old man" is used for packing material, bedding for cattle and as fodder.

Lichens by an eminent botanist of long ago were called "the beggarly among plants." Like the poor they are always with us. The number of different kinds sometimes found on a single boulder are surprising, as are the variety and number on fence rails and trees along the roadside. The representative species may be easily identified by the help of special books on the subject.

To one fond of collecting they will prove a joy, as no special drying apparatus is immediately necessary. At one's convenience they may be moistened, spread on drying sheets and mounted in the usual manner. It is well to remember that the lichen, like everything else, is most beautiful in its natural setting. If you do not need it for real and detailed study, let it remain where it grows. Too many plants find their way into the amateur collector's box. A real lover of nature is loathe to destroy or to take from its home any living growing thing. Far more important than the classification of any plant, is an appreciation of its beauty and fitness in the general scheme of creation.—The Guide to Nature.

# WRINKLES IN HORTICULTURAL WRITINGS.

It is one thing to write a book to suit oneself, and another to write one which shall be beyond criticism. The horticulturist generally is beyond the pale of criticism as far as a description of his practice goes, but when he launches into word pictures he does not seem to know where to "fetch up." A certain Rev. E. A. Bowles, who has achieved more or less prominence as a horticultural writer, recently published a book entitled "My Garden in Spring."

This book is about Mr. Bowles' garden, but it sets us asking questions about the mind of man, and in particular the question why men find it so difficult to write

books. Most of them can talk easily enough, and when they have anything to say can say it without any contortions of speech; but the moment they begin to write, their speech is apt to contort itself like the legs of a Victorian sideboard.

What is it that makes Mr. Bowles call someone's garden "a veritable golconda of floral treasures"?

Why is it that he begins a chapter on spring Crocuses thus?—

"For me, starting this chapter, there are great searchings of heart, compared with which those of the divisions of Reuben were nothing. If but one of them possessed a flat object with diverse and recognizable sides to it they might toss up and decide whether to go and help smash up Sisera or stay and listen to the music of their baa-lambs, and they seem to have decided pretty unanimously for the ovine concert. But for me, the very inmost cockle of whose heart glows more for a Crocus than for the most expensive Orchid, every cockle in me (though I haven't a notion what portion of my internal anatomy is meant by that borrowed appellation of marine molluses) is full of searchings and provisions how to do justice to my first garden love and avoid wearying and driving away readers to whom my raptures may appear the vaporings of a love-sick monomaniac."

Mr. Bowles, we are sure, would never talk like that; why does he take the trouble to write so? Why is writing for him a kind of obstacle race with every possible irrelevance interposed between him and his subject

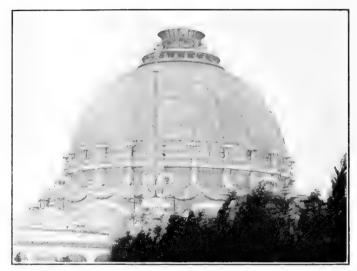
matter!

It is the same with Mr. Farrer, who tells us in his preface that "There was once a man who stood upon mont Cenis when all the earth was indeed a burning deck of blossom, filmed into the uttermost distances with gold and violet veins of the Pansies." This man, we are told, said "I don't think much of this for a display," which was a bad judgment on the Mont Cenis, but not so bad on Mr. Farrer's eloquence. For that tells us much more about his notions of style than about the beauties of the Mont Cenis. As we read it, instead of seeing these beauties with the mind's eye, we are set to wondering how the Pansies managed to film the earth into its uttermost distances with their purple and gold veins, or rather by what mental processes Mr. Farrer managed to persuade himself that his ideas were expressed by his language. We have no doubt that both he and Mr. Bowles are eager to tell us all kinds of interesting things that they know, but when they write, they are like bad swimmers who kick and splash and make no progress. And yet writing, for those who have something to say and are content to say that and nothing more, is not much more difficult than talking.

Mr. Bowles has a great deal to say. He could, if he would, tell us how to grow a great many plants; but, instead of doing that, he will try to express his feelings about his garden; and it is when a writer tries to express his feelings that all the difficulties of literature begin with him. We listen to a good gardener with respect when he expounds his craft; but the best gardener in the world is not therefore a humorist or a poet, and it is a fact which the writers of books on gardening continually forget. They try to communicate emotion to those who seek information. They labor to tell us what they feel when we want to know what they do. Mr. Bowles' book is of some value because, out of his great experience, he tells us which are the best out of many different species and varieties of plants; but how much more valuable it might have been if he could have remembered that Reuben and Sisera and marine molluscs have nothing to do with spring Crocuses.—Florist Trade Journal.

### LARGEST GLASS DOME IN THE WORLD.

An idea of the splendor and beauty of the Panama-Pacific International Exposition which is to open at San Francisco next year is given in this photograph of the hugh glass dome of the Palace of Horticulture. This is the largest glass dome in existence, being 185 feet in height and 152 feet in diameter. It is comprised of a steel frame with a wire glass covering. The architecture of the Palace of Horticulture, which is 600 feet long by 300 feet wide, is of Saracenic origin, resembling the famous mosque of the Sultan Ahmed I. The dome is visible miles from the exposition grounds. At night it will be illuminated by giant searchlights playing on the glass from within.



GLASS DOME ON HORTICULTURAL BUILDING, SAN FRANCISCO EXPOSITION.

# JUST GLIMPSES—"SISTERS."

By Miriam Teichner.

I paid a visit to the room of one
Hospital patient, "just a little" ill.
A woman who, since living had begun,
Had all the world to answer to her will.
And now, the social season lacking zest,
Quiet required, and nurse's care, "for rest."

The room was golden with the summer light.

Massed groups of flowers nodded toward the bed;
Great roses white and red and jonquils bright,
And violets, purple-sweet. The patient said,
In fretful tone: "Nurse, all this thick perfume
Annoys me. Take the flowers from the room."

In passing out, into a ward I strayed.

Here, narrow beds, each with its pain-racked form,
And here a stifled moan, and here one prayed

For quick release. Like mutt'ring of a storm
Hung on the air the pregnant chance of death,
So near, one almost feared to draw the breath.

I dropped the rose I held beside the cheek
Of one, a woman fever-painted, dazed
With pain; so famine-thin, so weak, so weak!
The vacant, staring eyes in stupor gazed.
She seized the bud, as eager as a child,
And kissed its coolness with hot lips that smiled.

Editor Gardeners' Chronicie;

Will you allow me the use of a portion of your space to offer a few words or comment upon some of the statements of Mr.

Frederick Liston in your last issue.

It appears to me that Mr. Liston must have been singularly unfortunate in his experiences, but if he has had to live in an unsanitary damp old shack, infested with vermin, etc., etc., himself that does not seem to be a sufficient reason for saying that these and other conditions he mentions "are prevalent in this country." Certainly I have yet to learn that "a large number of employers merely monkey with competent men" because a really competent man would not take a position without knowing something about it beforehand.

The state of things mentioned by Mr. Liston were never paralleled in the South before the Civil War, and I must admit that I find it difficult to believe any estate owner would ask a colored.

much less a white, man to live under such,

My experience in this country has been fairly wide, both in connection with employers for whom I have worked and hundreds of others in all parts of the country who have come under my observation, and I have never known one case where the gardener did not have at least comfortable quarters, some, of course, with more modern improvements than others.

If the conditions enumerated by your correspondent exist anywhere in this country then it is entirely the fault of those who work under them. Any man with an ounce of work or spunk in him would do something else rather than live like that. There are plenty of jobs going on farms where man can get good quarters, good food and pay which is worth having in addition.

Failing better a man could do worse.

As regards conditions in Great Britain, it is true that a good deal of land has gone out of cultivation (as it has in the Eastern States here), but not for the reasons stated. It has been caused more by the difficulty in getting labor than anything else, and there has been no "influx of farm hands to invade the ranks of gardeners." The employment market as a whole is not more congested than here, and there are not half the number of unemployed in London as there are in New York. The fact is that a number of men come to this country with the idea that it is an El Dorado, and that it is easy to get a soft job with good pay and little work; when they find themselves mistaken they blame the country instead of themselves. The difference in pay between the two countries is only about enough to compensate for the difference in the cost of living. The highest paid head gardeners in England receive a larger amount than do the highest paid ones here, and the former frequently supplement their incomes by the premiums they receive from young man who wish to learn their profession under them.

Up to a recent date any man from the old country calling himself a gardener, who had some smattering of the profession. could easily get a job here who would not be looked at at home, as there the standard of competency is very much higher than here because employers there are mostly experts themselves, and this latter fact is another reason which would prevent any influx of cheap farm labor having any effect upon the real gardeners'

The statement that a gardener's wife's services as cook, etc., are very often included in a \$50 salary appears on the face of it to be incomplete, for in that case board for both as well as accommodation would necessarily be included, and the salary would in that case be nearly all profit.

The political and plutocratic oppression mentioned as existing in England must be merely a figment of Mr. Liston's imagina-

tion because they do not exist there.

I must not trespass further upon your space, and will conclude by expressing the hope that Mr. Liston has by this time obtained a position under more favorable conditions and can therefore take a more optimistic view of the situation.

ARTHUR SMITH.

Editor Gardeners' Chronicle:

Having read the articles on pages 86 and 87, July issue of The Gardeners' Chronicle, headed "Gardeners' Grievances," by Frederick Listor, there is one point in the second letter that I have had in my mind some time past.

In my opinion, it would be a benefit to the gardener to have an advertising column for positions wanted. Not exactly free, but at a minimum rate to cover expenses of same. I think it would be well circulated and give the gardeners more chance of securing suitable positions

Hoping you will give this your consideration. BRONXITE.

### From "Horticulture."

In reading the essay on "The Reason for Cheap Gardoners." written by an assistant, one can't help but realize that the author seems to think that even after fifteen years' experience an assistant isn't necessarily competent. Would that man ever be competent? We realize that in all branches of work there are men who never prove themselves a credit to their avocation. Where is the man who has spent a lifetime at gardening that can sit back and say I know it all? There is the monotony that dulls and deadens, and to start something is the only relief.

Surely after serving a lifteen years' apprenticeship an assistant must be worthy enough to strike out for himself. to test the matter is to make a beginning; to start. An extract from Stevenson that may fire our worthy friend with a little more ambition is this: "For God's sake give me the young man with brains enough to make a fool of himself." He wanted to see in the world young men with brains enough to start something, to make an essay of their powers. Most of our great men have made false starts and have been derided for their pains, but in every case they have had sense enough to see their mistakes and profit by them. Rather than blame the assistants for the existing conditions why not look the matter straight in the face and lay the blame in its proper quarters namely, your competent gardeners and your so-called horticultural societies?

We hear men shout, "have the interest of your profession heart." They seem to lose sight of the fact that for an emat heart." ployer to have the interest of anything at heart, he must also have the interest of his employees somewhere in that neighborhood. Who but your discredited assistant is to carry on the work of your competent gardeners of the present day after they have added their little page to history? For some of our so-For some of our socalled horticultural societies a more fitting name would be a monthly smoker. On visiting a few of them the fact is forced upon one that they are little more than a mere meeting place for the exchange of the latest stories, and the same are not always pertaining to gardening. On most occasions there are a 'ew exhibits. Mr. So and So is awarded a culture certificate for such a plant. On being asked to tell the members what he has done to raise the plant to that stage of perfection, he will give you a heart-breaker like this: "Oh, I don't know that I have given it any special treatment, watered when it needed it, gave it a bit of fertilizer now and again, etc." A lot of encouragement to the assistant who has been looking after that plant with all the care and attention he possessed very often in his own time, with the hope of getting something worth looking at. If your present day gardeners have gained success in this slip-shod manner what is to hinder the assistant from accomplishing the same ends? Arnold Bennett spoke wisely when he said "You cannot gain anything by merely thinking about it, for after the necessary period of consideration, of incubation, as it were, a start must be made."

ANOTHER ASSISTANT.

### From "Horticulture."

Summed up, the contention of "Another Assistant," in your issue of July 18, is that after fifteen years' experience a gardener should be qualified to assume the full responsibilities of his profession. Few will disagree with him on that point, and I believe that "An Assistant" who wrote in the previous issue will concur that if a man has had the opportunity of fifteen years of thorough training and is then incompetent, his competency as a gardener is never likely to prove of much. I infer from "An Assistant's" remarks that he had in mind a class of so-called assistants which exists within the profession, just as does the class of so-called gardeners, and that his grievance is directed against this class and not towards assistants that possess the ability that is manifested by the contributors in the arguments they present.

Assistants are no more to blame for the existing unfavorable condition than these gardeners who profess to be competent but who are no more so than the assistants who menace the profession by seeking to assume the charge of an establishment with no more knowledge of gardening than what was acquired through two or three years' service in greenhouses, and who will bid for a head gardener's position at a salary so low that no able gardener can compete; and whose action invariably results in another score against the profession by some inconsiderate estate owner who knows so little about horticulture himself that he cannot distinguish between a competent and an incompetent gar-

dener when it comes to selecting one.

This is the age of young men, and opportunity awaits the assistants who are thoroughly proficient in their profession, which must include executive ability as well as ability to produce; and such young men should not permit themselves to be held in the background, for if they do how is the good in them to be uncovered? We have an illustration right at hand in your two correspondents. Their articles have elicited favorable comment, but they conceal their identiay behind nom-de-plumes. Able men are continuously sought, and there is no teling what their signa-

tures, disclosing the authors, might have brought to them.
What "Another Assistant" states regarding the horticultural societies is unfortunately true to a considerable extent; but there is a growing tendency to make the meetings of local societies

more educational, and many of them now manage to have an essay or lecture at each meeting. Assistants are also being recognized: for one of these societies has inaugurated a plan to award a prize for exhibits made at each monthly meeting by assistant gardeners, and this is likely to be followed by other societies as the practice comes to their notice. The co-operative movement between various societies will bring about more serious consideration of the problems which confront the profession of gardening than has heretofore been given to them.

As an answer to the question, "If your present day gardener

has gained success in this slip-shod manner, what is to hinder the assistant from accomplishing the same end?"-let it be said that the day of the "rule of thumb" methods is a thing of the past. Efficiency now counts with those engaged in gardening just as it does with those engaged in any other vocation. If it has accomplished nothing more, the recent controversy on the gardeners' problems has been fruitful in stirring up discussion among those most vitally interested—the gardeners themselves. We should have more of it, and "Horticulture" is to be commended for the M. C. EBEL, Secretary, space it is giving up to it.

National Association of Gardeners.

### Editor Gardeners' Chronicle:

I feel disposed to say a few words in regard to the writings of various gardeners in the Chronicle and Horticulture. Mr. Liston evidently has met with a streak of hard luck, because when he compares conditions prevailing in England and America, his opinion is in favor of the former.

Now, as one who has had experience in England, Scotland, Wales, Canada and America, I cannot refrain from contributing my mite of thought and experience. When he says that in comparison wages here are nil compared with the old world, makes me think he is homesick or has not seen much of either countries.

Now, to compare both England and America. A journeyman receives from 12 to 18 shillings per week, both milk and vegetables. a total value of about \$5. What is that in comparison to our assistant of \$40 per month and board, or in English money £8 clear. He has had to pay a large premium to learn gardening in some important field of horticulture.

He has to work from 6 a. m. until 5:30 p. m., with half hour deducted for breakfast and an hour for dinner, and must work very hard and not think he is a necessary part of the establishment. In many places he has to work in fruit houses until dark. In my early days we used to rise at 4 a. m. in summer to thin Very rarely are any paid for overtime, but allowed 10 days vacation. If he wants to attain a head gardener's position, he has to serve as foreman in a noted place until he is over 30 years of age, being generally considered capable then, but it is generally useless to try for a head place previous to this.

He also attends science and art classes and is generally a fairly well educated journeyman. If he is successful in his desire he must get married, not to suit himself or his partner, but his boss. His wages are about £2 a week, with house, coal, milk, vegetables and requisites, worth altogether in American money about \$15 a week. Compare this with what many head gardeners are receiving in America. There are a few getting more in England, but I have tried to give an average of the best paid places. for many good men are receiving less.

He must attend the village church and associate himself with whatever political side his employer is on. He is not usually kept if his family amounts to more than two children, and at the same time his boss will go on a public platform and preach against "Race Suicide! ' and advise his tenants not to emigrate.

His family must dress neatly but not in any way to approach his boss' kids. I knew a countess in the Midlands who met her head gardener's two small girls going to Sunday school and they were nicely clothed. Her ladyship stopped them and asked whose children they were. They replied, Mr. Jones' children, my lady. Her retort was, that they were better clothed than her own, and the head gardener was dismissed. Now, this is a fact, I know of it personally. This could never happen in America. do as we choose.

Mr. Liston says a gardener is a necessity because he is a producer. I take issue with that. What a gardener produces are not necessities, but luxuriant flowers, fruits, etc. To be a necessary producer the product would have to pay for all expenses connected therewith, and no private gardener makes a place pay.

We cannot make a corner of our labor like the plumber, mason, or any mechanic. We can only do our best to please our employers, and if conditions do not suit us we must suit ourselves to the conditions, because we are unnecessary.

What then, we say, are the benefits to accrue from the N. A. G. and of what lasting benefit is to be derived from it? We all know it cannot act as a salve for the wounded feelings of gardener or employer.

Sometimes it seems to give prominence to some head gardeners who are more fortunate than the average in having a boss who

allows them the strings of his purse and where expense does not count in the least.

We read about men who are leaders in horticulture, and smile at the idea. It is easy to get a great name in America. is one of the privileges. But looking around the places of some of these so-called leaders sometimes, we-fail to see where they shine. Because a man is a large exhibitor does not say he is a successful gardener. Many excellent men are working as assis an s and making a great name for the man for whom they serve, an l without their assistance the head man would be helpless on many occasions. Now, what the N. A. G. can do, I think, is to protect those who are in the profession as assistants, and try to keep out those who are continually imported as head men.

This is one of the perils to face. I am aware that a man who points out faults and perils is as unpopular as the minister who speaks the truth to his flock each Sunday. Most societies are formed to protect the worker. Now, why does not the N. A. G. protect the gardener? is the cry of many, silently, but who have not the courage to express their views in writing. But various reasons compel many to maintain silence.

A gardeners association in which members are divided cannot

Mr. Liston speaks, I believe, about the benefits in England derived from the British Gardeners' Association. We are much better situated here. We also have in our worthy secretary a man who is very much alive and who is doing more for the gardener than any one in the world, and it is our duty to help him.

Trusting you will give this space in the Chronicle.

### MASSACHUSETTS HORTICULTURAL SOCIETY EXHIBITION. AUGUST 8 AND 9, 1914.

The exhibition in Horticultural Hall on August 8 and 9 was a truly magnificent one, and it is many years since Boston had so beautiful, varied and extensive a summer show. Of the many striking features the most noteworthy was that of James Marlborough, superintendent to Thomas E. Proctor, Topsfield, Mass. Mr. Marlborough has made many fine displays in the past, but his exhibit on this occasion of hundreds of colored caladiums in over 125 varieties, filling one-third of the main exhibition hall, was wonderful. He arranged his plants in beds to produce a garden-like effect. The pond of water within the central bed with a fountain playing made the exhibit very refreshing on a warm August day. A gold medal was awarded to Mr. Marlborough; also a silver medal for superior culture.

Gladioli were shown in great numbers and of fine quality. The leading exhibitors of these were: William Sim, Chamberlain & Gage, B. Hammond Tracy, John Lewis Childs and William Whit-The variety Myrtle won first prize for Chamberlain & Gage for the best hamper or basket. Child's new Whitest White received honorable mention.

The show of hardy perennials was a magnificent one. R. & J. Farquhar & Company had an immense display all set up, so had Eastern Nurseries, Bay State Nurseries, Frederick H. Rea. William Page and Mount Desert Nurseries.

E. F. Duve & Son had a fine collection of dahlias. P. J. Rooney was awarded a certificate of merit for peony flowered dahlia, Mrs. Fred Grinnell. William Nicholson had vases of the newer forms of Buddleia variabilis. A. M. Davenport had massive flower heads of heliotropes. H. Stewart, gardener to Miss C. Warren, showed a fine lot of greenhouse and outdoor cut flowers.

In the competitive classes F. J. Rea, T. C. Tharlow's Sons, M. Sullivan, gardener to William Whitman and Eastern Nurseries, secured the prizes for perennial phlox classes. For gladioli William Sim, Chamberlain & Gage and Geo. Page, gardener to Mrs. Frederick Ayer, were winners, and Martin Sullivan swept the deck in the aster classes. For one hundred vases of annuals, not less than thirty species, William Thatcher, gardener to Mrs. J. L. Gardner; George Melvin, gardener to Col. Charles Pfaff, and Martin Sullivan won in the order named.

There were splendid displays of fruits and vegetables. A cultural certificate was awarded to William Downs, gardener to E. S. Webster, for splendid Lord Napier nectarines. A certificate of merit was also awarded to the estate of W. C. Jennison for the finest cultivated blueberries I have ever seen, the fruit being nearly as large as cherries. For fifteen varieties of vegetables arranged for effect, Edward Parker, gardener to Oliver Ames, was first and E. L. Lewis, gardener to Col. Frederick Mason, second.

It was a thousand pities that this fine exhibition could not have been arranged for convention week, as it would have proved vastly more interesting from a horticultural standpoint than the stereotyped so-called "trade exhibitions" given by the S. A. F. W. N. CRAIG.

# QUERIES and ANSWERS

We believe the greatest good can be accomplished for the greatest

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.

Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

Nothing will tend to better followship that the contribution of the property of the property of the contribution of the contribu

Nothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

Can you furnish me with directions as to the methods employed for raising perennial and other plants from seed in the open air? What is the usual size of the seed bed; how is it prepared; what is the usual distance between rows; the most convenient length for the row; the manner of identifying the varieties; the size of the label if one is used, and any other helpful information that may occur to you in this connection? As perennial seeds are often slow in germinating what is done to control the weeds between and in the rows to reduce to a minimum the injury to seedling plants and dormant seeds wished to be retained?—C. H. P.

The usual methods employed by large nurserymen in seed raising outdoors is in beds running east and west for perennial seeds; in order to give them the greatest amount of sunshine when germinated.

The soil must be deeply dug, but not necessarily rich. In fact, no animal manures should be present for seed sowing of flowering plants.

A convenient length is 100 feet. Mark out beds 6 feet wide. Leave 6 inches each side, and it will leave a space of 1 foot for 5 rows in each bed.

Run a line along, and mark out a drill, not deep, one inch is sufficient, in fact, too much, and too much care cannot be exercised in this matter. The soil should be in a fairly dry condition at time of sowing. August is the best month for the operation; and after scattering seed fairly thick in the drill cover slightly with fine soil which has been screened through a 1/16-inch screen, tamp down gently with the back of a spade, sufficient to press the seed in contact with the soil. In about 10 days some of the seeds will be through and unless the weather is very dry no water is required, but do not allow to suffer when germinated but water gently with a fine nose on the

The rows should be marked at each end by a plant stake 1 foot long. A convenient label is the kind florists all supply, which are soaked in a chemical and are better and more permanent than the ordinary painted ones. A label 8 inches is a useful one for outdoor purposes.

The above methods will do for annuals for perennial and biennial flower seeds; also for Perennial Shrubs. They must be cultivated between rows by hand, and the Dutch Hoe. Experience is the only way of knowing the varieties as they break through the soil.

As soon as convenient to handle, the young plants must be transferred to other beds composed similar to the seed bed, but must be protected from the hot sunshine. An excellent shade is made with plaster laths, in the form of a trellis and these can be obtained from any florist's store by mentioning the size required.

Pansy seed germinates better in a dark frame, and if a few stout stakes are driven in and a sash placed over and shaded a few days, it will hasten the germination.

It is an easily accomplished matter to raise thousands of young plants from seed. Care being necessary; also buy the seed from a reliable source. Weeds must be picked by hand from among the slow-growing plants.

# While at the Convention you will be cordially welcomed at

CEDAR ACRES

Gladiolus Farm.

# B. HAMMOND TRACY

WENHAM, MASSACHUSETTS

# Tree Owners and Tree Lovers

Will find much to interest and instruct

# NEW ILLUSTRATED MAGAZINE

Devoted to Arboriculture and Forestry.

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage.

Published quarterly by

# THE FROST & BARTLETT COMPANY

26 Cortlandt St.

(Suite 212)

**NEW YORK** 

### **⊵**ouadhoumhoumbr<mark>ais.t...</mark>adhlumhumhour marka.humhois is 1003,3 main (0.77 ±,76 moansuirink, is ORNAMENTAL IRON WORK

For Lawns and Gardens.

Chas. C. Force & Son.

LET US ESTIMATE ON YOUR WANTS.

Madison Iron Works, Madison, N. J.

# MOONS

450 acres in Trees and Shrubs—over 2,200 kinds to choose from. These are grown wide apart, and in consequence develop into sturdy, well formed specimens so much desired for estate, street, and park use.

Send for catalog.

THE WM. H. MOON CO., Morrisville, Pa. Philadelphia Office: S. 12th St.

# HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

# D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America,

Bex 305 Dundee, Ill.

# THE

EDWARD F. BIGELOW, Managing Editor

A Profusely Illustrated Monthly Magazine Devoted to Commonplace Nature with Uncommon Interest.

> Subscription, \$1.00 per Year Single or Sample Copy, 10c.

Canadian Postage, 24c.; Foreign Postage, 36c.

Published by The Agassiz Association, ARCADIA SOUND BEACH, CONN.

Make all Checks and Money Orders payable to The Agassiz Association.

# NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists. John Young, secretary, 54 West 28th street, New York.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society. L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society.

H. A. Bunyard, secretary, 342 West 14th street, New York.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

# LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. Meets first Thursday every month, Horticultural Hall, Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Meets third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Meets second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls.

Meets at Poughkeepsie, N. Y., second Wednesday every month except May and

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. J. Meets first Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass. James Whiting, secretary, Amherst, Mass. Meets second Tuesday every month.

The Garden Club of Michigan. Mrs. Edward H. Parker, secretary, 139 Seyburn avenue, Detroit, Mich.

The corresponding secretary will notify members of date and place of meetings.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Paterson Park, Baltimore, Md.

Meets second and fourth Monday every month, Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Meets monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th street and Columbus avenue, New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis-Meets first and third Saturday every month, October to April; first Saturday every month, May to September, Horticul-tural Hall.

Lenox Horticultural Society. G. H. Instone, secretary, Lenox, Mass. Meets first Saturday every month.

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary. Meets first Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Meets fourth Friday every month, Mon-mouth Boat Club, Red Bank, N. J.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette street.

Meets first Monday every month, Montreal Florists Exchange.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown,

N. J.

Meets at Madison, N. J., second Wednesday every month, except July and August, 8 p. m.

Nassau County Horticultural Society. Ernest Westlake, secretary, Glen Cove, N. Y. Meets second Wednesday every month, Pembroke Hall, Glen Cove. N. Y., 6 p. m.

New Bedford Horncultural Society. Jeremiah M. Taber, secretary. Meets first Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street, Orange, N. J.

Meets first Monday every month, Jr. O. W. A. M. Hall, Orange, N. J., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London, Conn.

Meets second Thursday every month. 38 Main street, New London, Conn

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Meets second and fourth Tuesday every month.

New York Florist Club. John Young, secretary, 54 W. 28th street, New York.

Meets second Monday every month, Grand Opera House.

North Shore Horticultural Society. Jas. Slater, secretary, Manchester, Mass. Meets first and third Fridays every

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. Meets first Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society. M. J. O'Brien, secretary, Mt. Kisco. N. Y. Meets third Thursday every month, except June, July and August, at 8 p. m.; December, January and February, 3 p. m.,

Odd Fellows Hall, Mt. Kisco.

Oyster Bay Horticultural Society. Fred Kirkham, secretary, Glen Head, N. Y. Meets fourth Friday every month, Board of Trade, Oyster Bay, N. Y., 8 p. m.

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 711 Westbank Bldg.

Meets first Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, 497 Bradford street, Pasadena, Cal. Meets first and fourth Friday every

month.

Paterson Floricultural Society. Sebastian Hubschmitt, secretary, 61 Seventh avenue, Paterson, N. J.

Meets first Tuesday every month, Romaine Building, 8 p. m.

Pennsylvania Horticultural Society. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut street,
Paterson, N. J.
Meets first and last Friday every month,

Working Man's Institute, Madison avenue, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets first Tuesday every month, Horti-cultural Hall, Philadelphia, Pa., 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. Meets first Thursday every month, Fort Pitt Hotel, Pittsburgh, Pa.

Rhode Island Horticultural Society. A. C. Miller, secretary, 7 Irving avenue, Providence, R. I.

Meets fourth Monday every month, Providence Public Library, 8 p. m.

Shelter Island Horticultural and Agricultural Society.

Fred Kirkham, secretary, Shelter Island, N. Y.

Meets first and third Thursdays every month.

Southampton Horticultural Society. William McLeod, secretary. Meets first Thursday every month, Memorial Hall, Southampton, N. Y.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarytown, N. Y. Meets last Tuesday every month, except December, Corporation Building, Tarrytown, N. Y., 7:30 p. m. Annual meeting last Thursday in December.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y.

Meets first Wednesday every month, Parish House, Tuxedo Park.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington. D. C.

Meets first Monday every month.

Westchester and Fairfield Horticultural Society. J. B. McArdle, secretary, Greenwich, Conn.

Meets second Friday every month, Doran's Hall, Greenwich, Conn., 8 p. m.

Yonkers Horticultural Society. Thos. Mahoney, secretary, Yonkers, N. Y. Meets first Friday every month, Hollywood Inn, Yonkers, N. Y., 8 p. m.

# GARDENERS DIARY

American Institute, New York, Dahha show, September 22-24, Chrysanthemum show, November 4-6.

Elberon Horticultural Society, Chrysanthemum show, Asbury Park, N. J., November 3, 4, 5.

Horticultural Society of New York. nual fall show, American Museum of Natural History.

Lancaster County Florists' Club, Lancaster, Pa. Fall show, November 5-7.

Lenox Horticultural Society, Lenox, Mass. Summer Show, July 22 and 23. Fall Show, October 22 and 23.

Massachusetts Horticultural Society, Horticultural Hall, Boston, Mass. Gladiolus show, August 8-9. Dahlia show, September Fruit and vegetable show, October 3-4. Chrysanthemum show, November 5-8.

Monmouth County Horticultural Society. Fall Show, Red Bank, N. J., October 28 and 29.

Morris County Gardeners' and Florists' Club. Fall show, Madison, N. J., October 28, 29,

Nassau County Horticultural Society, Glen Cove, N. Y. Dahlia show, October 6. Chrysanthemum show, October 29, 30.

New Jersey Floricultural Society, Orange, N. J. Dahlia and fruit show, October

Newport Horticultural Society, Newport. R. I. Summer show, August 12 and 13.

North Westchester Horticultural and Agricultural Society. Annual show, Mt. Kisco, N. Y., October 30-November 1.

Oyster Bay Horticultural Society, Oyster Bay, N. Y. Dahlia show, September 30-October 1. Chrysanthemum show, October

Society of American Florists. Out-door exhibition, Boston, Mass., August 18-21.

Tarrytown Horticultural Society. Annual Fall Show, Tarrytown, N. Y.

Westchester and Fairfield Horticultural Society. Fall show, New Rochelle, N. Y. November 4, 5, 6.

### LENOX HORTICULTURAL SOCIETY.

Excelling any previous exhibition in perennials and annuals, and the largest and most diversified showing of flowers and vegetables, the annual flower show of the Lenox Horticultural Society which opened ferior exhibits or on entries not made ac in the Town Hall at Lenox, Mass., July 23, cording to schedule rule. was conceded to be the most successful in every way in the history of the organiza- 11 o'clock on Thursday, the first day of the tion. Nothing so brilliant as the colorings exhibition, when indging will begin. of the flowers on display was ever shown before in Lenox.

An exhibit of 24 varieties of Sweet Peas was considered the premier display of the The leading competitors in this class were Mrs. Girand Foster of Bellefountaine Gardens and Mrs. William B. O. Field of Highlawn Gardens. Both exhibitors showed

new varieties, Mrs. Field having a cerise Spencer and a Marks Fey, a blue, while Mrs. Foster's double cream Floradell Fairy and a new cerise Illuminator, were splendid specimens.

One of the new flowers shown in Lenox for the first time was Begonia Alice Manning, Mrs. Carlos De Heredia exhibiting six

pots of this plant.

Miss Katherine L. Lawrence won the competition for the arrangement of out-ofdoor flowers and foliage in a centerpiece for table decorations, consisting of a 24-inch basket containing an oval arrangement of Lady Grizel Hamilton Sweet Peas set off with foliage of gypsophila (baby's breath), the dainty white contrasting perfectly with the deep lavender of the flower.

William E. S. Griswold showed a new variety of penstemon, which was greatly admired. Others exhibiting in this class were Mrs. Carlos De Heredia and Mrs. Robert Winthrop. In the class for delphini-ums, Arthur N. Cooley, of Pittsfield, had a very light blue flower. This was a long class, with the largest growers showing the blue flower in much profusion.

Mrs. Carlos De Heredia showed a fine collection of perennials, as did Mrs. John E. Alexandre and Joseph H. Choate. Smaller collections were exhibited by Mrs. William Hall Walker, of Great Barrington, Arthur N. Cooley, of Pittsfield, and Mrs. William E. S. Griswold.

Mrs. John E. Alexandre had a big showing of Asters, her Asters being quite the best that were shown. Charles Lanier made a big display of out-of-door Roses, as did Miss Adele Kneeland.

The judges were Walter Angus, superintendent of Mrs. Herbert Schoville's country place at Chapinville, Conn.: R. H. Schmidt, superintendent of Mrs. George Griswold Haven's country place, and John A. Donahue, superintendent of Belvoir Terrace, the country place of the late Morris K. Jessup.

American Plorist.

### HORTICULTURAL EXHIBIT MONMOUTH COUNTY AGRICULTURAL FAIR ASSOCIATION.

AT RED BANK, N. J., SEPT. 3, 4, 5, 7, 1914. Director in Charge Edgar A. Slete Superintendent Charles C. DeWilde.

### JUDGES

Mr. John F. Johnson, Superintendent, 'Killenworth,' Glen Cove. N. Y.

Mr. Thomas W. Logan, Superintendent, 'Crosswicks Farms,' Jenkintown, Pa.

MacKenzie, Superintendent. Mr. Alex.

"Rockwood Hall," Tarrytown, N. Y.

Mr. W. H. Waite, Superintendent, "Greystone," Yonkers, N. Y.

### RULES.

The judges, in making awards, may award special premiums for any meritorious exhibits, as no effort will be spared to duly recognize those contributing to the success of the exhibition; and shall have full power to withhold premiums for in-

All exhibits must be properly staged by

All exhibitors receiving awards are required to maintain their exhibits in perfect condition during the continuance of the fair or awards will be forfeited.

CLASS I .- Private Gardeners.

### Plants in Pots.

Best group of foliage plants, 50 sq. ft.,

arranged for effect First, \$20; second, \$10: third, \$5.

Best group of stove and greenhouse foliage and flowering plants, 25 sq. ft., arranged for effect on tables-First, \$15; second, \$10; third, \$5.

Best group of ferns, 50 sq. ft., arranged for effect Second, \$5; third, \$3.

Best group of Crotons and Dracaenas, 50 sq. ft., arranged for effect on table -First, \$10; second, \$5; third, \$3.

Best 3 specimens of Palms First, \$5; second, \$2; third, \$1.

Best single specimen Palm-First, \$5; second, 82; third, 81.

Best single specimen Fern-First, \$5; second, \$2; third, \$1.

Best specimen foliage plant (not palm) First, \$5; second, \$2; third, \$1.

### Flowering Plants in Pots.

Best single specimen Rex Begonia -First, \$5; second, \$2; third, \$1.

Best 12 flowering plants, distinct varieties—First, \$10; second, \$2; third, \$1. Best collection of out-door Roses, 6 varicties, vase of 6 each First, \$5; second, \$2; third, \$1.

Best collection of annuals, 12 varieties, not over 6 stalks in a vase—First, \$5; second, \$2; third, \$1.

Best collection of Perennials, 12 varieties, not over 6 stalks in a vase-First, \$10; second, \$5; third, \$3.

Best collection of Gladiolas, 6 varieties, not over 6 stalks in a vase-First, \$5; second, \$2; third, \$1.

Best collection of Gladiolas, 12 varieties, not over 6 stalks in a vase First, \$5; second, \$2; third, \$1.

Best collection of Cactus Dahlias, 6 varicties, one bloom in a vase First, \$5; second, \$2: third, \$1.

Best collection of Show and Fancy Dahlias not over 20 blooms in one vase -First, \$5; second, \$2; third, \$1.

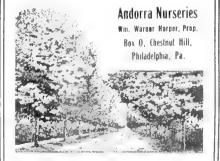
Best collection of Show and Fancy Dahlias, 6 varieties of each shown singly First, \$5; second, \$2; third, \$1.

Best vase of Single Dahlias, 6 varieties, one bloom of each First, \$5; second, \$2; third, \$1.

Best collection of Asters, 6 varieties, not

of growing trees and shards is different from that of other nurseries. The rule plant until the little plants become stundy specimer mediate results in the small garden or on the large est to

Visit Andore. It will be a revelu-tion in Led care of uting, an elucation in growing methods. Come by train, by troller, and the life your can not troller, and notes all you can not come, write us; we are ready to help by suggestions or complete planting plans. Our booklet will be mailed on request.



ond, \$3: third, \$2.

Best vase of Asters, most nearly perfect bloom, not over 25 sprays First. \$3; second, \$2.

Best 6 varieties of Celosia Plumosa, one of each in a vase-First, \$5; second, \$2; third, \$1.

### CLASS H! Open Class.

The open class is open to all growers, whether professional, private or amateur.

Best arranged and most artistic miniature garden -First, \$15; second, \$10; third, \$5.

The best vase or jar of 50 blooms, one or more varieties, arranged for effect, autumn or other foliage permitted-First, 815; second, 85; third, 85,

Best decorated mantel, any flowers, or foliage (mantels will be furnished upon application to the director in charge)—First, \$10; second, \$5; third.

Best hanging basket of cut flowers, arranged for effect (basket to count)-First, \$5; second, \$2; third, \$1.

Best flower or foliage window box, artistically arranged for effect (box to count)—First, \$5; second, \$2; third, 81.

Tritomas (red-hot poker), best vase, not less than 6 stalks-First, \$5; second, \$2; third, \$1,

Most artistically arranged basket of flowers -First, \$5; second, \$2; third,

Most artistically arranged floral centerpiece—First, \$5; second, \$2; third, \$1. The best flowering plant exhibited in any class First 85; second, 83; third,

### TARRYTOWN HORTICULTURAL SOCIETY.

The annual outing of the Tarrytown Horticultural Society took place at Rye Beach, Rye, N. Y., August 4. Dinner was served at Edwards' Hotel. Seventy-five members and friends of the society were present, and all enjoyed the dinner and the day's outing. The committee in charge,-James W. Smith, William Scott, John Brunger, George Wittlinger and Thomas A. Lee deserve much credit for the day's enjoyment. Games were indulged in. The hundred-yard dash for all was won by George Wittlinger; the hundred-yard dash for boys by Harold Gniff; potato race by Alfred Lee: three-legged race by Wm. Kastberg and George McIntosh; running broad jump by Wm. Kastberg; tug-of-war, Wm. Scott on one side and W. Melville Scott the other, Wm. Scott, winner,-Horticulture.

### SOUTHAMPTON (N. Y.) HORTICULTUR-AL SOCIETY.

The eighth annual exhibition of th's Society was the bes ever staged in Southampton. The postponement of the exhibition from the previous week proved to be a very wise move, for there was a wealth of flowers now in bloom that had not arrived

at maturity last week.

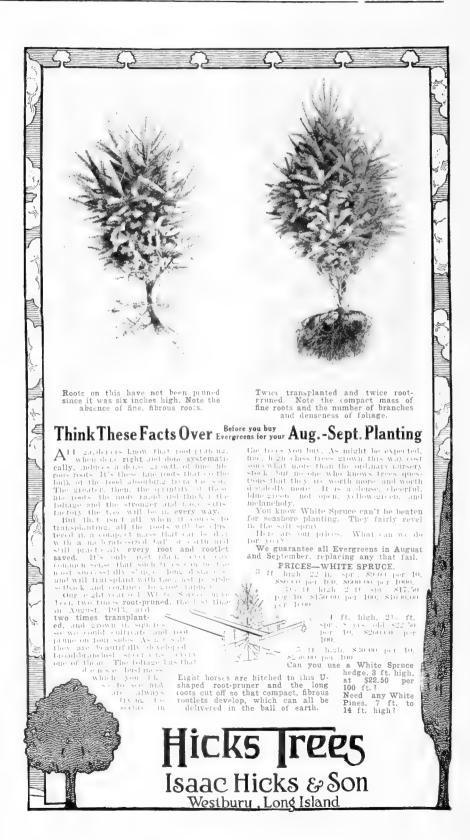
The exhibits were divided into five divisions. Division A included table decorations and decorative designs. Division B included cut perennials, annuals, etc. Division C included greenhouse and herbaceous plants in pots or tubs. Division D included ornamental stove and greenhouse plants. Division E included fruits and vegetables. The principal attraction was the exhibition of decorated luncheon and dinner tables, open to the women of the cottage colony only, the flowers and foliage used in the decorations to to grown by the exhibitor.

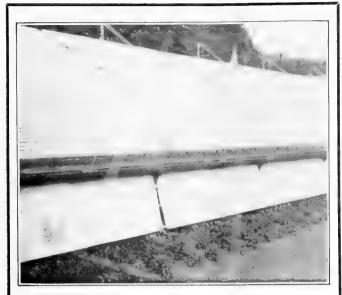
over 6 sprays in a vase-First, \$5; sec-| The judges of the exhibit: were G. W. | July 25 and 26. This exhibition was under Gilbert of Shelter Island, George Wiltinger of Tarrytown and Frank Niquet of Patchogue. One-half of the net proceeds will be donated to the Southampton Hospital.

# BAR HARBOR SWEET PEA SHOW.

The Bar Harbor Horticul aral Society held its second annual Sweet Pea Show on

the direction of the following committee: William T. Burton, chairman: Edward Kirk, Clarence E. Dow, John H. Stalford. John Renwick. The staging of the flowers was under the care of Arthur E. Thatcher. who had charge of the exhibits, and acted as manager for the show. William Sim and George Cruickshank acted as judges,





# Lathe Roller Blinds

Can be tassed droine it. Couldy pair of the day, and are now used on all the leading private estates for orchid, palm and stove houses. I have erected this patent shading on most of the leading private place in the country, and should be pleased to submit plans and estimates to any one interested. These lathes are made of the mass material obtainable

# HARRY BALDWIN

Greenhouse Lathe Roller Blinds Specialist

18 CHURCH STREET NEW ROCHELLE, N. Y.

By an Unusual Arrangement with the Publishers We Offer to Our Readers on Special Easy Terms

# BAILEY'S NEW

Everything Newly Written Up To Date Beautifully Illustrated

# Standard Cyclopedia of Horticulture

Title new Standard Cyclopedia of Horticulture has been freshly written in the light of the most recent research and experience. It is not merely an ordinary revision or corrected edition of the old Cyclopedia, but it is a new work from start to finish with enlarged boundaries geographically and practically; it supersedes and displaces all previous editions or reprints of every kind whatsoever.

It is the fullest, the newest, the most authoritative of all works of its kind and constitutes the most conscientious attempt that has ever been made to compress the whole story of our horticultural thought, learning and achievement into one set of books.

Write for 16 Page Prospe tus Containing Complete Description and our offer to Subscription Department.

GARDENERS' CHRONICLE OF AMERICA Madison, N. J.

WE have about 500 Specimen Evergreens in variety, suitable for moving in the months of August and early September. Descriptions of same sent on application.

Send for our new Bulb Catalogue

# International Nurseries, Inc.

1905 West Farms Road, New York City

PHONE 4028 TREMONT

# Gardeners All Over the World Use

APHINE, for spraying against all sap-sucking insects, such as aphis, red spider, thrips, mealy bug and soft scale; and for cleansing palms and decorative stock generally.

\$2.50 Gal., \$1.00 Qt.

**SCALINE**, an oil and sulphur composition for spraying trees, shrubs and hardy stock against San Jose, oyster shell and other scale, red spider, etc. Readily soluble in water; mixes without agitation; does not clog.

\$1.50 Gal., 10 Gal., \$10.00, 50 Gal., \$37.50

FUNGINE, to control mildew. rust or bench rot in the greenhouse. a spraying material; an infallible remedy. It does not stain foliage as Bordeaux or lime and sulphur, but cleanses it.

\$2.00 Gal., 75c. Qt., 10 Gals., \$15.00

VERMINE, to rid the greenhouse soil of eel worm, root maggots and other soil vermin, will be found most effective. Used according to directions it is not injurious to vegetation.

\$3.00 Gal., \$1.00 Qt., 5 Gals., \$12.50

# DO YOU USE "NICOTINE"?

To meet the demand created by Agricultural Experimental Stations, favoring 40% nicotine solutions in their recommendations, we offer

# "40% NICOTINE"

SOLUTION

for fumigating, vaporizing and spraying, \$13.00 Gallon-\$3.75 Quart-\$2.00 Pint.

# **NIKOTIANA**

A 12% nicotine solution, properly diluted, for fumigating and vaporizing; most economical in using, \$4.50 Gallon—\$1.50 Quart.

Compare our prices with what you now pay. Then let us supply you.



THE RECOGNIZED STANDARD INSECTICIDE.

W. N. Claig writes in Florists' Review (March 5th, 1914): "Scale on greenlouse plants is not easy to get rid of, as doses which are sufficiently strong to kill the scale will usually disfigure the plants at the same time. I have found APHINE a first-class remedy for scale, and if you will apply it according to directions you will kill and loosen the scales, although they will not fall off, as will some other pests." It will only require the hose to wash off dead scale.



Our products are for sale by all up-to-date seedsmen. If your local dealer cannot supply you with our products, send us your order with remittance and we will ship immediately through our nearest agent.

# Aphine Manufacturing Company

Manufacturers of Agricultural Chemicals

BRITISH DISTRIBUTORS: British and American Fertilising Company, Leith Offices—Liverpool, England.

MADISON, N. J.

CANADIAN AGENTS:
Pupuy & Ferguson, Montreal, Que.
Steele, Briggs Seed Co., Ltd., Toronto. Ont.

Inspect Our Products at the Society of American Florists' Convention

### THE GARDENERS' CHRONICLE OF AMERICA.



OU look out the window some day and see two

men go past. One is of chunky, solid build, and he hustles perspiringly along with a great swinging of his arms. He impresses you as a man who is going to get there "if it takes a leg."

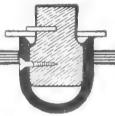
Man number two is of slighter build. He walks with a light springiness. He does not seem in a great hurry. There is no lost motion in his movements, however. No swinging of arms, but he is getting there just as the other fellow. In fact, he is actually as fast as the other fellow. In fact, he is actually walking faster.

If you and I could follow those two men throughout the day, man number two (the light, wiry man) would always be easily overtaking the thick set one. Always he would pass him.

It's exactly the same with greenhouse construction. The light, U-Bar constructed house beats all other constructions when it comes to actual growing results. Its slender strong frame of U-Bars has all the strength of the heavy framed houses, but none of the lost motion in actual results getting.

Some houses with curved eave attachments look like the U-Bar; but "looks are deceiving." If it's not built with U-Bars, it's not the U-Bar curved eave house.

To get a point by point pointing out, of the excelling points of the U-Bar house, send for the new catalog. Or send for us. Or both,



心心

# U-BAR GREENHOUSES

PIERSON U-BAR CO

ONE MADISON AVE. NEW YORK CANADIAN OFFICE 10 PHILLIPS PLACE MONTHEAL

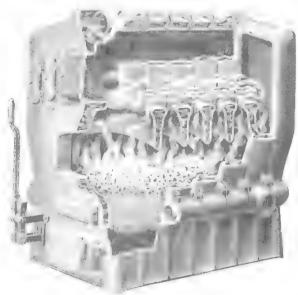
# Some Summertime Things It's Time To Do

wwewerewewewewewewewerekerekerekewe

to the line, or at tall to a structular with the control of t them in. Plant Committee that is a second of the second r lir. J. ast s series of the series of It i O. tel at How his

Very seldom you are able to accomplish things sooner taxi. your appears to a second of the experience of the Like V of the Co.

The late to the second of the control sees the point of the control sees the point of the control sees the point of the control sees the contr



Hitchings and

NEW YORK 117 B. abvay

BOSTON, 49 Federal Street

INI ALLIPHIA 40 S 1

# "New and Meritorious Forms of Old-Fashioned Flowers"

# Four Beautiful Daffodils

# King Alfred (The King of yellow Daffodils)

stance. The trumpet is large and elegant, with an expanded frilled mouth measuring 2½ inches in diameter. The petals are proportionately large and gracefully twisted. Lasts a long time in flower.

# Duke of Bedford (New Giant Bicolor)

A magnificent flower of giant proportions, and splendid form. The petals are pure white, broad, and overlapped. Trumpet of a soft clear yellow, with a much expanded brim. Early, and a robust grower.

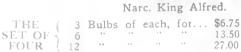
# Firebrand (Red cup)

One of the most beautiful novelties of recent years. Long creamy white petals and a long tubular cup, fiery red from brim to base. A most striking flower when grown under glass.

# Incognita (Red cup)

This was a sensational flower when first introduced. The cup is about the size of a 25 cent piece, and lies almost flat against the almond pointed petals, which are white, and the contrast between these and the beautiful orange-apricot color of the cup can be imagined, but realized only when seen.

These flowers when first introduced, found a ready sale at from \$20.00 to \$50.00 per bulb; now offered in America by us, at these very moderate prices:



Having procured the entire stock, we are the sole distributors of the

# New Orchid-Flowered Christmas Sweet Pea "SELMA SWENSON"

Originated by Mr. G. Swenson of Elmburst, Ill., and now offered for the first time,

It is a beautiful clear, light, soft pink, with waved petals: a vigorous healthy grower, and forces splendidly.

Per Packet 25 Seeds, \$1.75 (While stock lasts)

# The New Canna "FIREBIRD"

Here is the state of the state

### YOU WILL HAVE TO HAVE IT.

Secure your stock early and make a profit.

Price, One to Two-eyed Roots, Each \$1.00 Per dozen, \$11.00

Our complete Autumn Catalogue will be ready this month. Ask for it at Chicago or New York.

# Vaughan's 43 Barclay Street

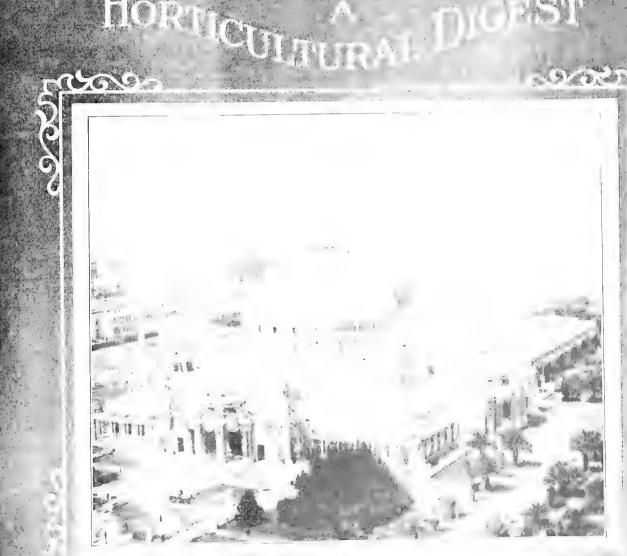
43 Barclay Street NEW YORK

# Seed Store

31-33 W. Randolph St. CHICAGO

Canna Firebird.

# 



THE GARDENERS' CHRONICLE OF AMERICA.

# uestion

T'S not reasonable to expect you will take the trouble and bother to write us a letter, stating all the facts necessary for us to advise you intelli-gently concerning the kind of greenhouse best suited for your particular place or purpose. Neither is it to be expected that you are going to scratch your head to be sure to let us know all the things we must of necessity know, before we can give you an estimate. But if you had before you a simple Question Blank, that you could, with comparatively little effort, fill in, you would willingly give us all the information neces-

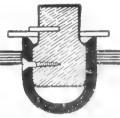
Of course, you don't want to be bothered with a lot of fool questions. Neither do you want to be asked a

lot of questions in a second letter after you thought

you had answered them all in the first.
So to overcome all these things, we have prepared very carefully a Question Blank, that is as easy to fill out as rolling off a log. It covers every point we want to know about.

Send for one of our new catalogs and we will enclose one of these blanks. Just fill it out and return. If you don't want to, you don't have to bother writing any letter. The Question Blank is letter enough.

Send for the catalog and let's



### **GREENHOUSES** U-BAR

PIERSON U-BAR CO

ONE MADISON AVE. NEW YORK CANADIAN OFFICE TO PHILLIPS PLACE MUNTHEAS



# That Number 87

THIS particularly practical combination of palm house and wings, with a connecting house and workroom at the back, is what we call our ideal layout No. 87.

For a range of moderate size we have sold more of it than any other. First and foremost it

is beyond criticism from a point of practicalness or economy. Second: it seems always attractive no matter what the location is.

We have a four color illustration of one

### SALES OFFICES

N 1 1 1 1 4 1 8 1 1 1 Chicago. R : V b. Philadelphia. Franklin Bank Bldg. Toronto-12 Queen Street, East.

Boston Tiemont Bldg. R chester. Granite Bldg.

Burnham 6.

FACTORIES

I . . . . . . Y Y Des Plaines, Ill.

# Thorburn's Bulbs

# To the Gardener:

XYE have a great deal to sav to gardeners and beginning with this September issue will use a half page or more each month for the telling of "news" about our business which we believe will be of special interest.

Our Bulb Catalog is now going out and if you have not received your copy write and ask for it and also for our special prices to gardeners.

> You have heard a good deal about the trial grounds which are maintained by the more careful seed houses and much talked of by all. We show this month a little view in our trial grounds at Noroton, Conn. See photo.

# J. M. THORBURN & CO.

Established 1802

53 Barclay Street

New York



# Palms and Ferns

Home grown, they have a foundation for a long life and luxuriant growth. These are just a few of the varieties—see our Fall Planting List for additional ones.

### PALMS

Phoenix Roebelenii—The popular decorarecurving leaves, with narrow green pinnae.
9 inch tubs, 36 in high, 36 in spread, each, \$7.50.

# FERNS

Adiantum Croweanum " Farleyense Gloriosa

Boston Ferns Ferns for fern dishes. Eight of the best varieties. 75c. per doz., \$5.00 per 100.

Be sure and get the Fall List and look it over-it contains only the best stock, listed at attractive prices.

# A.N PIERSON INC. CROMWELL CONN

600000 N 500000

LATEST WAR

**NEWS** 

Owing to the war we do not expect to receive any new crop of LILY OF THE VALLEY pips from Germany this Fall.

We have an extra fine lot of COLD STORAGE PIPS on hand and can offer them now for future delivery.

# Cold Storage Dresden Pips

250 for \$7.00; 500 for \$13.00; 1000 for \$25.00.

Order early before they are all gone.

W. E. MARSHALL & CO.

SEEDS BULBS-PLANTS

166 West 23rd Street. New York

Hallilate of the Control of the Control

# NEW, RED DOROTHY PERKINS EXCELSA

Pilot 1 million 1 Tillion 1 Tillion

Winner of the Hubbard Memorial Medal for the best Rose introduced in the last five years.

We have in all sizes probably the finest stock of this fine rose in America.

This is typical of our complete assortment of Climbing Roses for Parks, Gardens and private Estates. Send for our new Price List.

THE CONARD & JONES COMPANY WEST GROVE, PA.

Malley Hickory, Wallands decreased in

Strawberry Plants That Bear This Fall

A MERICUS, the leader of the fall-bearers, will give luscious, large sweet Strawberries, equal to June fruit, if you set pot-grown plants in July and early August.

BIG, POT-GROWN PLANTS

\$1.50 per doz., \$10.00 per hundred, delivered

SEND YOUR ORDER EARLY.

Ask for our Mid-Summer Catalog of Strawberries, Vegetable and Flower Seeds, Plants and Bulbs. Mailed free.

Weeber & Don, Seed Merchants, 114-L Chambers St., New York, N. Y.

# Julius Roehrs Company Nurserymen and Florists

Headquarters for Orchids, Palms, Stove and Greenhouse Plants, Bay Trees and Box Trees, Laurus Cerasus, Aucubas, Cyclamen, Begonia Lorraine and Cincinnati, Evergreens, Decideous Trees and Shrubs.

RUTHERFORD, NEW JERSEY

# COMPETENT GARDENERS

¶ The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

# PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

**NEW YORK CITY** 

Incorporated 1911

ANDREW K. KENNEDY. Pres. and Treas.

1 1919 11

# KENNEDY & HUNTER

**SEEDSMEN** 

Our Bulbs Have Arrived Place Your Orders Early

156 West 34th Street One block from New York

"ONLY THE BEST"

# A Hardier Privet Hedge!

Bushy, Transplanted Plants for Immediate Effect. Vetual tests show IBOTA to be hardier than California Privet. Unquestionably handsomer. Ours are exceptionally fine plants, hardy and vigorous.

Tell us how many you can use and ask about the new, compact Ibota for ornamental use.

The Fragrant Wild Crab Apple

gives a charming air of rustic simplicity to the home grounds—Bears rosy-red flowers in wondrous profusion. Exceptional stock: 4-5 ft., \$1 each; 10 for \$7.00; 25 for \$13.75. Larger plants if desired.

# THOMAS MEEHAN & SONS

Box 65

Germantown, Phila, Pa.

# Dreer's Choice Bulbs for Autumn Planting

Planting our high-grade stock will insure a bountiful harvest of blooms next Spring. Make your selections now from

# DREER'S AUTUMN CATALOGUE

which offers the best selection of Hyacinths, Narcissus, Crocus, Iris, Snowdrops, Scillas, etc., also a select list of Old-fashioned Hardy Plants; plants for the house and conservatory; Hardy Shrubs, Hardy Climbers, Flower, Vegetable and Grass Seeds. Everything seasonable for the Garden, Greenhouse and Farm. Write for a copy and please mention this publication.

HENRY A. DREER
714-716 CHESTNUT STRFET
PHILADELPHIA, PA.

ilitaria (C.C.) 29.2 - Element Establica establica establica (C.C.)

# **BOBBINK & ATKINS**

AND INTERPOLATION OF CONTROL OF THE CONTROL OF THE CONTROL OF THE CONTROL OF THE PROPERTY OF THE PROPERTY OF THE CONTROL OF THE PROPERTY OF THE CONTROL OF T

### WORLD'S CHOICEST NURSERY AND GREENHOUSE PRODUCTS

AUTUMN PLANTING.

The Months of August and September are the Best Time to Plant Evergreens.

EVERGREENS, CONIFERS AND PINES. We have more than 75 acres planted with attractive EVERGREENS. Our collection is conjected to be the most complete and ungnificent ever assembled in America. The varieties comprising same have been thoroughly tested and proved hardy. Our plants are dug with a ball of earth and burlapped previous to shipping. Before purchasing elsewhere intending purchasers should not tail to inspect our collection.

THE FOLLOWING PLANTS FOR GUTDOOR PLANTING, INTERIOR AND EXTERIOR DECORATIONS ARE AMONG OUR SPECIALTIES.

HARDY OLD - FASHIONED PLANTS. Several acres of our Nursery are exclusively devoted to their culture.

STRAWBERRIES. Potted and Field grown in all the leading varieties. We have many thousands of Strawberries and are in a position to fill orders of any size.

AUTUMN BULBS AND ROOTS. We grow and import quantities of Rulbs and Roots from all parts of the world

**PEONIES AND IRIS.**—We have a complete collection of them ready for immediate delivery

OUR NEW HYBRID GIANT FLOWERING MARSHMALLOW.— Everybody shotld be interested in this hardy new old fashioned flower.

OUR ILLUSTRATED GENERAL CATALOG NO. 45 and AUTUMN BULB CATALOG describes our Products. Mailed upon request,

"We Plan and Plant Grounds and Gardens Everywhere."

NURSERYMEN, FLORISTS AND PLANTERS

HARDY TRAILING AND CLIMBING VINES. We have them for every place and purpose

HEDGE PLANTS,—We grow a quantity of California Privet, Bosteris and other Hedge Plants.

PLANT TUBS, WINDOW BOXES AND ENGLISH GARDEN FURNITURE. We manufacture all shapes and sizes

TRAINED, DWARF AND ORDINARY FRUIT TREES AND SMALL FRUITS. We grow these for all kinds of Fruit Gardens and Orchards.

SEXD FOR CATALOGUE.

VATE SALE.

The Macniff Horticultural Company 56 Vesey Street, New York City, New York

SPECIAL NOTICE

Gardeners and Superintendents

**OF** 

**Public Parks and Private Estates** 

We have received several consignments of

On account of the war they were sent to us to be disposed of at AUCTION and PRI-

These bulbs are of the FINEST VARIE-

Kindly let us know your wants and we

TIES and EXHIBITION SIZE.

will be pleased to quote you.

HOLLAND GROWN BULBS that were grown for the EUROPEAN MARKETS.

# RUTHERFORD, N. J. <del>Бионовом</del>ання выполняющим в выполняющим полительной выполняющим выполняющим выполняющим выполний выполний выполн

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection. We can prove it.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55 5 lb. package making 150 gallons, exp. extra 1.80

25 lb. package making 750 gallons, exp. extra 6.25

50 lb. package making 1,500 gallons, extra 12.50

exp. ext 100 lb. package making 3,000 gallons exp. extra 20.00

Barrels from 250 to 300 lbs., 18c. per lb.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon.  $1\frac{1}{2}$  gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

# BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.

# MR. GARDENER:

# JUST CONSIDER A MOMENT!

Sick Trees Never Cured Themselves Yet!

# AND THEY NEVER WILL!

Then Why Wait Longer? Time Is Precious.

CALL US IN

WE HAVE the KNOWLEDGE, the EXPERI-ENCE, the MEN, the TOOLS.

# JOHN T. WITHERS, Inc.

Landscape Architect and Forester

1 Montgomery St.

Jersey City, N. J.

The	ContentsSeptember,	1914
-----	--------------------	------

	150	N. I. I. W Dr. William H. Waita	174
"Our Flag" Selected	159	Notes by the Way By William H. Waite	
Awakening Interest in Aquatic Gardens .	1.60	Opportunities in the Country	175
By William Tricker	160	Giving Old Mother Nature a Chance	
Pelargonium "Clorinda"		By John Kendrick Bangs	175
By Charles H. Totty	162	Editorial	176
The Plant That Coughs	162	National Association Notes	177
Japanese Blood-Leafed Maple		Among the Gardeners	181
"We Are All Alike"	163	Billion Condensity	181
Wintering Flowering Greenhouse Heaths .		. Intercent a recognition of a serie cap continue	
Hardy Perennials from Seeds		American Rose Society	187
		Work for the Month of October	1.0.0
Dasylirion Glancophyllum		By Henry Gibson	188
History of the Gardening Profession		Queries and Answers	189
By Arthur Smith		National Associations	
Propagating the Dahlia	168	Local Societies	
Our Cover Illustration		Gardeners' Diary	191
Cultivation of English Walnut Trees		Newport Flower Show	191
By Holister Sage	169	Tuxedo Park, N. Y., Shooting Match	191
Edging Material for the Plant House		Nassau County Horticultural Society :	192
		Connecticut Horticultural Society	192
Euphorbia (Poinsettia) Pulcherrima		The Horticultural Society of New York	192
English Ivy as a Cover Plant	170	Oyster Bay Horticultural Society	
What Bulbs to Plant	171	Northshore (Mass.) Horticultural Society	
The Trees		Monmouth County Horticultural Society .	
Spent on Roads in 1913		Massachusetts Horticultural Society	
		Lake Geneva Gardeners' and Foremen's Ass'n	
Park Development Organization		Uncle Ike on the Initiative	
By Frederick Law Olmstead	172	Advantage of Fall Planting	193

Half a Million of the finest Roses in the world are yours if you want them. I am the American Agent for Hugh Dickson of Belfast, Ireland, and can quote you any quantity or variety. Am just now making up my import orders and would like to hear from you if interested.

CHARLES H. TOTTY, Madison, N. J.

P. S. Rose List mailed you on request

# GARDENERS' CHRONICLE

# OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

### THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XVIII.

SEPTEMBER, 1914.

No. 5.



# Awakening Interest in Aquatic Gardening

By Wm. Tricker.

Aquatic gardening is apparently in its infancy, though aquatics are as old as the hills; but this class of plant now commands our attention. Aquatics are associated with the history of the ancient Egyptians, where mention is first made of the Egyptian lotus, Nelumbium speciosum, the worship of which was common with them. Sculptural representations of it are found among the ruins of Egyptian temples. It was not only known to the ancient Egyptians, but was common in olden times in East and West India, China, Japan, Persia, and Asiatic Russia. The Chinese have ever held it in sacred regard, but that character was not limited merely to ornamental purposes; the roots (or tubers) were used and still are as an article of diet. The American lotus, Nelumbium leteum, was well known to the Indians as an article of diet, but has of late been disregarded.

Nymphaeas are also widely diffused and are found in all parts of the world, each different country possessing species peculiarly its own. But of all the Nymphaeas no species can compare with Victoria Regia and although many species were known in England prior to the introduction of the latter, the cultivation of aquatics received a stimulus thereby, which extended to the United States, the effect of which is felt by us this day. The discovery of this wonderful plant by Mr. Bridges, an English traveler, in 1845. He successfully carried to England the seeds that produced the first plant which became so famous. This was in the year 1849, when a tank was built expressly for the new plant in the great conservatory at Chatsworth, under the man-

agement of Mr. Paxton.

It is interesting to note that there were progressive florists in the United States at this date, although neither rapid transit not ocean greyhounds were established. Yet, the result of such an achievement in floriculture was not only known here, but a similar tank and greenhouse were constructed, and the Victoria Regia was successfully grown by Mr. Caleb Cope, Philadelphia, Pa., in 1851. Considering the time when the Victoria flowered in England-November, 1849there was little time lost; and this act exhibited an enthusiasm and enterprise worthy of our day. The foregoing is the earliest record of aquatic gardening in this country. With the Victoria was also introduced Nelumbium Speciosum. The construction of the Victoria tank and house was such as to stimulate natural conditions. The warm water and tropical atmosphere were not enough; the water had to be kept in motion. A water wheel was constructed for this purpose and a stream of water constantly flowed which was conducted into a cistern or reservoir in the middle of the vegetable garden which was used for watering in those days before city water hydrants and hose were thought of. In this cistern the Nelumbium Speciosum was planted and was a great success. After this small aquariums and ponds were made out of doors by different people and aquatics were more or less grown.

It is sad to relate of this enterprising gentleman, as of many others since, that he died very shortly after this event and that the glory and pride of this horticultural establishment thereafter departed, and on this historical spot stands the Forrest Home for aged

actors.

Yet another and pleasing feature in connection with this first Victoria in the United States, and which makes this event most interesting. We had until recently at the head of the Department of Parks in the capital of the Union a man of singular ability, experience and judgment who was an employee in the gardens of Mr. Caleb Cope when the first Victoria and lotus were grown. I refer to Mr. Geo. H. Brown, now deceased.

The state of Massachusetts appears to have been the next in order of date where the cultivation of the Victoria Regia was engaged in. The earliest grower in that state being John Fisk Allen, of Salem, who on June, 1883, exhibited Victoria Regia at the rooms of the Massachusetts Horticultural Society. The Victoria still led the way and in the year 1856 it was grown in Cincinnati by Mr. Geo. Pentland, gardener to Nicholas Longworth, Esq., but its cultivation did not become general and would not now under such

expensive modes of culture.

Attempts to cultivate Nelumbium speciosum are reported prior to Mr. Cope's venture. The archives of the Pennsylvania Horticultural Society contain the following report: "At the meeting held on February, 1840, the committee on distribution of seeds submitted their report, from which it appears two parcels of seeds had been received, one from Calcutta, presented in 1838 by Dyllwyn Parrish, containing among other things seeds of Nelumbium Speciosum and N. Album, and Mr. R. Buist succeeded in raising plants of these species which were considered very rare in this country if indeed they existed, except from these Calcutta seeds."

From 1856 to 1876 very little was done in the way of aquatic gardening, but at the latter date Philadelphia was again to the front and a plant of Victoria Regia was a novel and attractive feature of the Centennial Exposition. In 1886 aquatics were introduced into Central Park, New York. Nelumbium Speciosum is there naturalized and is one of the most striking features of the park. In 1888 L. W. Goodell appeared on the scene with a tank of aquatic plants at the annual exhibition of the Massachusetts Horticultural Society. A year later H. H. Hunnewell exhibited a collection.

Amateurs now commenced to cultivate the aquatics and choice specimens were to be seen at Newport and in the neighborhood of Boston, Chicago and other cities. Mr. Chadwick, president of Chicago Horticultural Society, grew aquatics which undoubtedly led to the introduction of these plants into Lincoln Park in 1888, then under the able management of Supt. J. A. Pettigrew. The cultivation of Victoria Regia as well as all available Nymphaeas at that time has given Chicago and her parks a world-wide reputation. Other parks and gardens have introduced aquatics with surprising results and to-day they are the most popular plants. The Victoria has been grown in the Botanic Gardens, Washington, D. C., since Dr. Bahnson, after several attempts, succeeded in flowering the Victoria in the open at Salem, N. C., grown without artificial heat.

It must necessarily be late in the season before planting out or run the risk of losing all. In many cases where steam power is used in factory, pump or for other purposes, the waste steam can be used for the heating of the tank, but the safect and best method is to have an independent heating system. The introducing of Victorias into our gardens and parks opened up a wide field for the general cultivation of tropical Nymphaeas which has now become general in

most of our public parks, also by a large population of the wealthier class who own and maintain beautiful grounds. A few enthusiastic amateurs who grew aquatics for pleasure and recreation have done much for the advancement of this now popular class of plant, and it may safely be said that in no other country can such aquatic gardening be seen at the present day as in the United States. In England, where every known variety finds a home, few, if any, growers have venturned to cultivate Nymphaeas save in aquatic houses, hence it is very difficult to compare the same or to know the species by description of plants grown under glass with less light and solar heat, as given. The plants here are more vigorous, have more substance, and the color of the flower and foliage is intensified.

We are all familiar with the name water lilies, though a misnomer, and we all know that Nymphacaea is not Liliacea; we might rather call them water roses, as our friends do across the big pond. Any way we know them as water lilies and when we hear that word our minds at once carry us away back to our childhood years and places where the water fily grew, whether in this or any other country. But to the general mind it conveys the picture of a white flower, in all its purity, as white lilies predominate in the temperate zone. Our Eastern fragrant pond lily, otherwise known at Nymphaea odorata, is white; the pond lily of the middle and western states, N. tuberosa in numerous forms, is also white. The European lily, N. alba, N. candida, is also white, as are also the Japanese species, N. Pygmea. These species are the progenitors of a host of varieties, embracing all shades of color, save blue; yet including a most valuable color not mentioned before, that of vellow. This color was introduced through the admition of N. flava, the Florida or southern species. This species is not perfectly hardy in the eastern or western states, but it plays a most important part or place in the make-up of our magnificent collection of hardy water-lilies.

It was this species that first attracted the great hybridist, Latour Marliac, and by uniting or crossing the two species, N. tuberosa and N. flava, produced that magnificent variety, N. marliacea chromatella. The blood of N. flava is readily traced in all water-lilies that have yellow, if only faintly, in their make up; not only in their flower, but the foliage tells tales; there is the spotted or marbled foliage more or less in evidence.

Next in color comes pink and the only known pink variety was Odorata rosea, but here the curtain remains down. The dark colors did not come suddenly, and from my experience I find that color is intensified in the crossing, the pollen parent conveying both color and size. The only known species and the one that has played so much in this class is N. sphoerocarpa or Alba rosea, the Swedish lily. The first hybrid that appeared in the pink color was N. marliacea rosea, which was in 1887, parentage unknown, only to the hybridist. Next was N. laydekeri rosea in 1892,—I may here

Next was N. laydekeri rosea in 1892,—I may here say in passing that the group known by the prefix Marliacea are among the best of all Nymphaeas and will ever stand alone, distinct in color, form and symmetry. These are N. marliacea albida, carnea, chromatella, rosea, flammea, ignea, rubra-punctata,—this was sensational in color, form and floriferousness. It resembled N. alba rosea in color, but intensified, varying in color from a soft tender pink to rosy carmine and deep carmine. This was indeed novel, but the flower was undersized and as larger flowers made their appearance this almost vanished out of sight until it is now hardly ever seen. I know of but one section in this country where it was a success—northern New York State.

But as new and larger flowers came rapidly into the market, even at higher figures, this charming hybrid became scarcer and scarcer and few of this group ever existed. We have only Laydekeri rosea, fulgens, purpurata and lilacea. These are excellent varieties for tub culture and small basins. As a species I do not know of a darker pink than N. alba rosea or Sphoerocarpa, and less than three decades ago we had only a few species of the hardy water lilies, whereas at the present time we have over one hundred varieties, the progeny of these three cardinal colors, white, pink and yellow. It might be nice to include blue, but I am thankful it is not hardy and believe it never will be. But let us turn to the field of tender Nymphaeas. A few species have been known for a number of years: N. Rubra, the India species; N. Capensis, of South America, and N. Coerulea, of North Africa, and associated with Egyptian history, and N. Lotus.

The India species are night blooming and it is well they are, for they cannot endure our summer sunshine, let alone that of India. The first variety we are familiar with is N. Devoniensis, named in honor of the Duke of Devonshire, origin unknown, or questionable, but it is a form of N. Rubra; the latter species and N. Lotus or dentata are the species from whence came our selected group of night bloomers, embracing many of the choicest water lilies now in cultivation, also the largest flowers, these if not all are of American origin.

The blue water lilies all hail from Africa or nearby places. The N. Zanzibariensis comes from Zanzibar, and N. Gigantea from Australia. The latter is very difficult to cultivate, but it can be grown and I think it surpasses every known blue water lily in cultivation. Of late another species has made its appearance or has been brought into prominence, Micrantha. This is entirely distinct, being of a viviparous nature—producing a distinct and separate plant from the upper surface of the leaf just over the insertion of the petiole. Another characteristic is its wonderful floriferousness, perpetual flowering and producing extra sized flowers in the depth of winter, the color of which is not affected by the short and dull days.

In the early eighties an army doctor in Salem, N. C., turned his attention to water lilies and succeeded in growing several varieties and was tempted to try a Victoria Regia out of doors, and after a time succeeded in having a plant flower out of doors without artificial heat. This, I believe, was the first on record. Amongst his Nymphaeas, which were largely hardy kinds, appeared a fine pink variety, a natural cross, not a hybrid. This latter was put on the market as N. Odo Caroliniana. I regret this variety has disappeared, although the name still exists. About the same time John J. Gardner, brother of Richard Gardner, both enthusiasts, both specialists, was gardener for Jerry Lorillard, at Jobstown, N. J. He, too, grew some water lilies, and about this time they were introduced into Central Park, New York City, and the parks at St. Louis, where the veteran James Gurney is still at the helm, who has done so much for horticulture and has been a masterhand at aquatics and where the finest specimens of Victorias are annually grown, none better, if as good. I must mention right here in another opposite section of this vast country another doctor of medicine, Dr. Faunce, of Yarmouthport, Mass., who is an amateur, was a lover of horticulture and grew the newer up-todate water lilies as M. B. Latour-Marliae and put them on the market, for at this time these marvelous productions were arousing such an interest in England and France and, consequently, America. At the same time and in this same locality our lamented fellowworker James Beydon resided, who was gardener to

U. S. Simpkins. He was an expert, a mighty man, and any of you who have ever crossed swords with him at an exhibition knew you were up against it when you had to compete with him, in whatever line, not excluding Nymphaeas and other aquatic plants. To him I give the palm, not only as one of the best growers, but as one of our foremost hybridists. It was he who produced one of our grandest and best of hardy Nymphaeas and I am proud of having named that grand variety N. Jas. Brydon in honor of him.

I must again refer to our worthy chief who has crossed the great divide—John A. Pettigrew—who made for himself a name in Chicago. He moved on from there to Milwaukee and constructed lily ponds there. He eventually returned East and was superintendent of Prospect Park, Brooklyn, N. Y., where a system of ponds were constructed and are to this day the pride of Brooklynites and all lovers of horticulture. Mr. Pettigrew eventually moved on to Boston where he continued his active work in horticulture and he left these works as a monument to his memory.

I must not omit to mention another worthy amateur who also played his part in promoting the culture and spread of aquatic lore, S. C. Nash, of Clifton, N. J. He turned a swamp into a veritable paradise and in addition to this he constructed a tropical garden and here were grown some of the finest specimens of Victorias, the most beautiful of all water lilies, N. Gigantea and many other species. He was also a masterhand with the camera and many beautiful pictures and photographs of the water garden are his workmanship. George V. Nash, of the Bronx Botanical Gardens, is a son of S. C. Nash. These gardens are the pride of New Yorkers and the water gardens and pool are visited by thousands in the season and are not surpassed by others in the United States.

In the central states aquatic gardening has its devotee in the person of E. T. Harvey, of Cincinnati, Ohio, an artist who has for several years had a charming pool effectively planted and heated by a simple device, using gas for heating. Here are to be seen fine specimens of Victoria together with other tropical Nymphaeas and Nelumbiums.

I have left the name of one to the last to mention because I feel that through him we arrive at the pinnacle or climax of Nymphaeas. His name may be unknown to many of you, but it was my privilege to work side by side with him. He was a student in the University of Pennsylvania; he was fired with a love for the water lilies and it was his privilege and opportunity to visit the water gardens at their nurseries at Riverton, N. J., when I was in charge of the same. Here he could study the many species and forms which only added to the difficulty, as there was a maze of names so synonymous that it was chaotic. He was assisted by the University to visit Europe and with letters of introduction was admitted to Kew, the National Museum and similar institutions on the Continent and examined the ancient herbariums and manuscripts. Nothing like a complete synopsis of the water lilies had been put before the English speaking world until this working student, Henry S. Conard, returned from Europe and wrote his symposium or monograph of Genus Nymphaea and which was published by The Carnegie Institution of Washington in 1905. I regret very much that Dr. Conard has left this field of research and is now located at Grinnell, Iowa, in some other field of exploration. He is the author of the book "Water Lilies and How to Grow Them." He also contributed much on the Nymphaeas for Bailey's Cyclopedia of Horticulture.

# PELARGONIUM "CLORINDA."

BY CHARLES H. TOTTY.

The illustration shows a well-grown plant in an 8-inch pot of this little-known Pelargonium. The plant when photographed carried three hundred and twenty trusses of flowers, four feet across, and was three to three and one-half feet high, and had given a continuous succession of bloom from the first week of February to the middle of June. This plant was grown about eighteen months from the time the cutting was inserted in the sand until the picture was taken by James Fraser, superintendent of the Cedarcourt Estate at Morristown, N. J.

In addition to the bright rosy cerise flowers which



PILARGONIUM "CLORINDA"

made a wonderfully attractive plant, the deep green foliage has a delightful fragrance when crushed in the hand. I feel sure if more of your readers were acquainted with this Pelargonium they would make it a point of having at least half a dozen plants for cutting and conservatory decoration. It cannot in any sense be called new, and yet it has almost disappeared from cultivation. With the general broadening of horticulture many varieties of plants such as this Pelargonium will come to the surface and eventually be recognized at their true worth.

# THE PLANT THAT COUGHS.

That there are meat eating plants is generally known, but that there are also plants that cough—not figuratively, but in the true, literal sense of the word—will be surprising to most readers. Indeed, to the researches of a French botanist we owe the description of a plant growing in certain tropical regions which obviously "coughs" like a human being. The plant externally is in many respects related to our common bean. It is very sensitive, and shows a strange dislike of every kind of dust. No sooner do a few grains of dust settle on its leaves, and thereby irritate the air chambers of the sheath scale, which represent the organs of breathing, than these organs fill with a kind of gas, swell up and then explosively reject the gas, whereby the dust is expulsed. But this explosion produces a sound that has a striking resemblance to the cough of a child that has caught a cold. The stranger who, in the midst of the wilderness, hears the sound, involuntarily looks about for some man or animal, and discovering, of course, nowhere a living being that might have coughed, will be seized with the uncanny feeling of the presence of some spook.

# JAPANESE BLOODLEAVED MAPLE.

The great beauty of the Japanese Blood-leaved Maple is sufficient reason for its general presence in so many of our gardens. We refer to the one known as Acer polymorphum atropurpurem, writes Joseph Meeham in Florists' Exchange. It is in Spring, when its lovely bloodcolored leaves are in their full expansion, that its great beauty is presented, the rich red foliage being then at its best. This color is held without much change until Summer is well advanced. It changes with the heat of the season, becoming dulled by the sun, but until Autumn there is a distinct red color to the foliage. There is no other red foliaged small tree or shrub its equal in its way, and of its general hardiness there is no question.

Because of its appearance as a shrub on our lawns many do not know it grows to the height of a small tree, but it does. There are some of them about Philadelphia 18ft. to 20ft., having a spreading, bushy habit, not unlike bushy forms of Acer campestre that one sometimes sees. But these large ones are, some of them, perhaps 40 years old, as it is from 40 to 50 years since plants of it were introduced to Philadelphia gardens. Some have supposed them as first appearing here together with the Japanese who represented their country at the Centennial Exposition at Philadelphia in 1876, but this is a mistake, as there were plants of it in the Meeham nurseries before that, coming, it is now believed, from a German nursery from

which importations were then made.

Those who plant this blood-leaved Maple in a shaded place make a great mistake, as it will not take on its rich red color in such a situation; instead the foliage will be almost green. Nurservmen often are charged with having supplied a spurious bush in cases like this, the owners, knowing nothing of the requirements of the bush, placing it under the shade of large trees or in other shaded positions. Even when a bush is in a proper open position, should the upper branches closely press on those below them, it will be the upper ones only that will be of the blood color of best type as are the leaf stems as well. The whole appearance of the tree is so unlike any other that to have a specimen of it on a lawn is considered a great acquisition. It is of Japanese origin, and but the one species, Japonicum, is known, and, fortunately, it proves hardy with us in our severest Winters. It cannot be praised as a flowering plant, for its flowers are so small and colorless—save for its stamens, which make some display—that to many it passes as producing none. Then, being of a directions nature, the male and female flowers are on separate trees, so it is only when two trees of an opposite character are near each other that seeds are produced. These seeds come in short pods, are very small, but vegetate well, hence there is no trouble in getting a stock of seedlings rapidly when seeds are procured.

Besides propagation in this way, there is that of layers, and cutting of young shoots in Summer, to help along

in adding to one's stock.

This tree presents its best appearance when growing in deep, moist ground. Then its foliage is presented at its best, much superior to what it is when in positions lacking moisture. Botanists tell us the Cercidiphyllum is closely allied to the Magnolias, but there is nothing in the general appearance of the tree to indicate this.

# WE ARE ALL ALIKE.

"We're all alike, it seems to me No matter what our stations; For we all prune the family tree By cutting poor relations."

# WINTER-FLOWERING GREENHOUSE HEATHS.

At one time collections of greenhouse Heaths formed a prominent feature of many gardens, but with the decline in popularity of hard-wooded plants in general, many of the Heaths disappeared from cultivation. A few kinds, however, are still grown, and as a rule in very large quantities, for some of the nurserymen who make a specialty of them generally devote the greater part of their energies to these greenhouse Heaths and similar plants, such as Boronias and Epacrises. Delightful little specimens of these may frequently be seen in the florists' shops, especially during the autumn, winter and early spring months, the summerflowering kinds being, naturally, not so much in demand, though of them the attractive Erica ventricosa is still grown. After the summer is over, the Heath season may be said to begin with E. gracilis, a dense, twiggy little bush, whose tiny rosy purple flowers are borne in great profusion. Several varieties of this Heath are in cultivation, namely, rosea, in which the purple tinge of the flower is almost wanting, it being of a pleasing rosy shade; and vernalis, of more sturdy growth than gracilis itself, and much later in flowering. There are two white or pale flowered kinds, namely, alba, the oldest, in which the blossoms often have a pinkish tinge. They are decidedly less pure than those of nivalis, which is now extensively grown.

After E. gracilis comes E. hyemalis, a great favorite, and always in considerable demand about Christmas There is a variety of this known as superba, whose flowers are deeper colored than those of the type, also a variety alba, in which they are pure white.

Another winter-flowering Heath that has come prominently forward within the last decade or so is E. melanthera, which may be grown into larger specimens than any of the others. The flowers of this, which are borne in great profusion, are small and of a distinct mauve color, with blackish anthers. The lowgrowing, white-flowered E. caffra is also grown to a limited extent.

Of those that as a rule bloom somewhat later than the preceding, but yet may well be included with winter-flowering Heaths, are E. wilmoreana, somewhat in the way of E. hyemalis, but of a more robust, spreading habit; and E. persoluta alba, with a profusion of

tiny white bells, gracefully disposed.

All the different winter-flowering kinds alluded to belong to what are termed soft-wooded Heaths, from the fact that they are readily propagated by cuttings of the soft-growing shoots; whereas many of those that used to be grown as large specimens could only be increased by cuttings of a firmer nature. soft-wooded cuttings are, as might be supposed, very delicate subjects to handle; hence everything should be prepared before they are taken in hand. They are best covered with a bell-glass, so that the size of the pots or pans will depend upon that of the bell-glasses available. Whether pots or pans, they must be filled to within an inch of the rim with broken crocks, coarse at the bottom and very fine on the top. The soil should consist of peat and sand passed through a sieve with one eighth of an inch mesh, and made very firm and smooth. In inserting the cuttings, each one must be made quite firm, and though space should not be wasted, overcrowding must be avoided. A length of about an inch is a suitable one for the cuttings, in preparing which a very sharp knife is essential. When a pot is filled, it should be watered through a very fine rose, allowed to drain, and then be placed in a snug part of a warm greenhouse, taking care that the outtings are shaded from all direct sunshine. When rooted they must be potted off, the subsequent treatment being a matter of detail. It must, however, be borne in mind that it takes nearly three years to obtain

a good plant.

Where it is intended to keep the old plants after flowering and grow them on another season, they should, when the blossoms are past, be cut back hard, and as soon as the young shoots make their appearance the plants must be repotted, giving them in most cases a pot one size larger than before. The soil should be peat and sand, pressed down very firmly, and especial care must be taken when repotting that the ball of earth is not dry, otherwise it will be almost impossible to moisten it in a satisfactory manner.—The Garden.

### HARDY PERENNIALS FROM SEEDS.

Attention may be directed during the present month to the sowing of any hardy perennials not on hand that are likely to be in request for another season. Such sowing may be recommended from a double standpoint. In the first pace, seedlings of good things thus acquired may take the place in prominent borders of more common plants; and in the second, because a batch planted in some outlying part of the garden is always acceptable for cutting. A portion of a narrow slip garden, especially if the soil is naturally deep and moist, will be found useful for the purpose, and the species and varieties of the same can be planted here in beds of 4 feet, 5 feet, or 6 feet, as may be deemed advisable, with intervening alleys of 2 feet to admit of cutting the flowers without too much treading on the beds. To the lover of hardy plants, propagation of this kind is peculiarly interesting, and the seedlings are watched with keen interest right away from their first appearance above ground until the flower is clearly defined. I prefer boxes to the open ground for sowing, the double advantage being that while yet in a young stage there is better opportunity of warding off the attacks of insects, and, in the case of seed-sowing, the chance to particularize in the covering given to different seeds. The seeds are sometimes very tiny, and, naturally, only require the least bit of soil on the top. The strips of wood at the bottom of the boxes should be fairly close together, not more than 1/4 inch apart. A few small crocks may first be placed, followed by 1 inch of rough leaf-soil, the remainder of the compost consisting mainly of old potting soil, not too dry, to which have been added a bit of fresh leaf-mould and a little sand; the surface should be even throughout, and pressed fairly firm. Prepare the boxes as it might be to-day, give a soaking of water, and sow to-morrow, taking care the seed is evenly covered, and, as hinted above, discriminating as to the depth of covering according to the size of seed. Place the boxes in a frame facing north, and shade in bright weather. Be careful the squares of glass are intact, as water running in on the soil will wash out the smaller seeds, and, as germination takes place at various periods, the boxes must be carefully watched.

It is not necessary to occupy space with a list of things, because the majority of herbaceous plants can be raised in this way, and the list would naturally be a long one. It may, however, be pointed out that, with the demand for cut flowers ever on the increase, preference should be given to those things that can be utilized for this purpose as well as to make a display in the garden. The selection should also be comprehensive so far as the different seasons are concerned. I noted above that a planting to furnish cut bloom might

find a place in a slip garden. If there are trees it may not be advisable to plant close up to them, but many of the things that can be selected will be benefited by partial shade. It is hardly necessary to add that not the least interesting point in this propagation of hardy flowers is that it is within the reach of all flower-lovers who can command a small cold-frame to receive the seed-boxes, and one of somewhat larger size for pricking out the seedlings until they can be consigned to permanent quarters.—*Exchange*.

### DASYLIRION GLANCOPHYLLUM.

The accompanying photograph of Dasylirion Glancophyllum is one of a pair which flowered the past month at Pembroke, the country estate of Captain J. R. De Lamar, Glen Cove, L. I., over which Robert Marshall presides as superintendent.

It is a Mexican plant and belongs to the Ord Liliace. Flower spikes were about 10 feet high with Catkin like flowers of a creamy color covering four or five weeks

luration.

They winter it in the cool greenhouse and being evergreen it makes a very interesting subject. In Summer they use it out doors as shown in picture.

Ordinary Carnation soil with 1 third leaf mold seems to suit their requirements with plenty of water during Summer.



DASYLIRION GLANCOPHYLLUM.

# History of the Gardening Profession—Its Progress

By Arthur Smith

It is with some diffidence that I venture to address you upon this subject, more especially in Boston, in a state containing perhaps more thoroughly well-managed private estates than any other in the Union. But as our association is a national one, I consider myself as speaking not only to those present, but to all private gardeners

through the country.

There are no doubt several ways in which this subject could be dealt with, but the point of view taken by myself is that our work in its real and highest sense requires an education as wide, as deep and as scientific as that which is necessary to fit a man to be, for instance, a qualified physician. A large number of gardeners have this education and are therefore entitled to be looked upon and treated in the fullest sense as professional men. Unfortunately, however, a much larger number of us have it not and are deficient in that thorough, all-round knowledge of, what may be called, the technique of our work.

Most of us, I imagine, wish to see our profession advance and this idea causes me to propose taking most of the time given me in dealing with some of our faults, for I believe that there will never be any real advancement if we only meet to pat one another on the back and resolve ourselves into a mutual admiration society, which is too often the practice of horticultural societies.

If my method proves to be unpopular it cannot be helped, and in that case I must ask you to blame the facts

rather than myself.

At the outset I would suggest that a much wider meaning be attached to the word gardener; in fact, some have thought that a more official recognition be made of the scope of our work, which, in the majority of cases, includes every phase of estate management. Of course, the word itself is good enough for any one; but there are many gardeners, however, who not only refuse to give themselves much trouble about anything outside what is strictly a garden, but seek to narrow it down still more within itself, causing estate owners to complain of the difficulty in getting men to take an interest in their This matter will be alluded to more at length later on.

The statement that the first man was a gardener has often been made as evidence of the antiquity of our profe-sion, and even those who look upon the story of Eden as an allegory must admit that the writer of it could not conceive a happier condition upon earth than that of living in a garden nor imagine a higher calling than that

of caring for it.

Casting our eyes down through the ages there is any amount of evidence to show that a garden has always been one of the adjuncts to man's abode where conditions

of settled government permitted.

Time does not allow me to multiply examples, but the wonderful terraced-sometimes wrongly called "hanging"-gardens of Babylon may be instanced as showing to what a remote period artistic genius in creating landscape effects and love of the beautiful existed.

Another striking example is the amazing engineering skill shown upwards of four thousand years ago in planning and creating the wonderful irrigated gardens of Egypt whereby veritable Gardens of Allah were made

in the desert.

In China, India and Persia gardening was a universally practised art in times before the dawn of history. The Greeks, among whom public gardens were a great feature, copied their style from Persia, and when the

Roman Empire was at the height of its prosperity two thousand years ago horticulture was classed among the most honored callings. Many of the most noted senators of that period went to the Senate literally from the plowbandles. Flowers in the greatest profusion were always in evidence at public and private festivals, and the Goddess Flora held one of the highest positions in the religion of those times. Among the most noted writers of the period were those who used their literary ability in advancing the art of soil cultivation and plant growing. and although they did not know anything about the scientific principles underlying their practice, yet the most advanced methods of that day were in many respects no way behind those of the present; in fact, the majority of farmers in this country today do not farm so well as did those ancient Romans, and many of the precepts advocated by those writers could with great advantage be put into practice upon gardens and farms at the present moment.

In all times man has, in his desire for the beautiful, added a flower garden to his house and even in the interior of South Africa I have seen Kaffir huts with a garden around them planted with flowers; a striking contrast to thousands of houses in this country today with ground around them but no garden.

There is ample evidence to show that from immemorial times there have existed private estates with elaborate ornamental grounds, and public parks and gardens which required skilled men for their management and upkeep, and apart from this obvious fact ancient writings bristle with statements showing that our calling as a distinct



ARTHUR SMITH, READING, PA.

profession has been throughout all the times of the ancient civilizations most highly thought of.

So far as I am aware the first attempt to form our profession into an association was in the year 1345, at which date the City of London Guild of Gardeners was established, about which the courtesy of the secretary, Mr. E. A. Ebblewhite, has enabled me to learn many interesting historical details which time will not permit being fully mentioned.

At that period guilds were common both in England and the northwestern part of Europe, this guild of gardeners being the sixty-sixth that was formed in London, each of them being for a different craft. guilds were established for the one and all-embracing object of securing the highest possible efficiency in the respective craftsmen, and also to see that no inefficient, unskilled men practiced a craft. As these objects were undoubtedly for the public interest, the guilds had the support of the law, and the guild of gardeners had the power under their royal charter of causing the arrest of all persons carrying on the trade (as they called it) of a gardener without the consent of the guild; that is, of men who were not skilled craftsmen. At the present day a body with that power would be kept fairly busy in this country.

Although some of these guilds still exist, the march of time has caused their power to become obsolete. This guild of gardeners now confines itself to giving a scholar-ship tenable for two years for the purpose of assisting young gardeners in their horticultural studies. Its members also take an annual outing, which this year was spent in visiting some of the fine old gardens still to be found in France, which managed to escape the vandalism of mob law.

Some people have been ignorant to state that these guilds were practically the same as trade unions. As a matter of fact, the similarity between the two is like that of chalk and cheese.

Guilds were formed and supported by men of the highest principles, by men whose probity was unquestionable, who possessed wide and high ideals and who sought in every way possible to elevate the standard of craftsmanship to the loftiest plane. So far at least as the guild of gardeners was concerned, and there is no reason to suppose any difference in the case of others, the question of remuneration was never once made the subject of even discussion, much less action.

One of the objects of our association is to obtain the recognition of gardening and estate management generally as a profession. A clause in article 1 of our constitution reads, "To uplift the profession of gardening by endeavoring to improve conditions within it." Some think that one of the best ways of obtaining improved conditions is to secure higher salaries. In the first place it must be borne in mind that a man who is receiving all the pay he is worth is on the down grade; and secondly I venture to think that if every gardener's salary were raised 50 per cent, tomorrow, it would not have the effect of uplifting the profession by a hair's breadth. If we really wish to benefit ourselves we must go deeper than this.

The failure of our profession as a whole to reach the position to which it has the right to aspire is caused by the fact that the rank and file of it do not fully satisfy estate owners' requirements; in other words, the profession is being held back by the number of incompetent within its ranks.

You probably think this a very strong statement, and I do not for a moment expect it to be a popular one, but it is one which is certainly warranted by facts within my own knowledge, and as regards its popularity I am not

in the position of a demagogue on the stump for votes, but in that of a man thoroughly convinced of the seriousness of the disease from which our profession is suffering which requires the infliction of pain to place it on the road to convalescence and to cause it to open its eyes to the obstacles in the way of reaching a healthy condition. To know the cause is the first step towards a cure.

It has happened that during the past twelve years my work has principally been that of starting private estates in various parts of the country from Long Island to as far west as Washington State, and during this period circumstances have given me many opportunities of meeting estate owners other than those for whom I have worked upon what may be termed neutral ground. It has thus been possible to learn something of the employers' point of view and to hear statements regarding their difficulties in respect of men whom they have put in charge of their estates, which, together with numerous incidents that have come under my own observation, has placed in my possession many facts which go to support the assertion I have made.

It is, I think, a pity that the word gardener is too often taken in its narrowest, instead of the widest, sense. It should be looked upon as including all phases of estate management, not, as is the extreme position taken by some, that anything outside a greenhouse as being outside either their interest or study.

A resident in Boston said to me a year or so ago that it is lamentable how comparatively few men there are seeking positions to take charge of private estates who know anything about hardy plants. A few years ago an estate owner had all his glass pulled down so as to take away any excuse for the continual neglect of his shrubbery, herbaceous borders and other outside work. In another case the estate was shut down entirely on account of the owner becoming disgusted. On an estate, which there is no harm in saying is in Massachusetts, the owner told me that he had been trying for years to get a gardener who was interested in botany and the natural flora of the country with a view to encouraging the growth of native plants in the wilder parts of the grounds surrounding the house, but without success. He remarked how strange it seemed that the average gardener should take practically no interest in hardy plants and wild flowers.

I do not in any way belittle the value of the florist's side of our profession. Those of us who visited the New York Show last spring must have felt great pride in the splendid exhibits which private gardeners made there, and which, by causing private estate owners to take great interest in it, contributed much to the show's success.

But why should a professional gardener who is an expert florist stop at that? Why cannot he be as expert in all other branches of estate management?

Most estate owners have a different conception of what constitutes gardening than they had even ten years ago. Things horticultural are upon a much higher and more artistic level and will become more so as the teachings of Nature and nature study bear fruit. Employers today require something more than the artificial production of the greenhouse and the profession must keep pace with the march of these newer ideas.

It appears to me to be unreasonable to expect an estate owner to pay a large salary to a one-sided man, however expert he may be in one thing, more especially if the employer requires more of something else that the manager understands little or nothing about, and does not even show himself willing to take the trouble to learn.

Of course one is not blind to the fact that there are many first class men, men possessing wide and deep pro-

fessional education, who are not receiving the appreciation nor remuneration they deserve. To the average professional man in the fullest sense of the term his work is a labor of love to which he gives his entire self. Many men are discouraged and prevented putting forth their best by reason of want of encouragement on the part of their employers. A man takes up his work day by day with renewed vigor if he knows that he is appreciated; that his constant striving after more and better results—frequently under difficulties which his emplover could remove—is recognized and that his position as a professional man is acknowledged. This goes further than an increase in salary. Not that an increase in one's income is unwelcome to any one, but no amount of salary will compensate for want of appreciation, especially when coupled with a policy of petty pinpricks and a constant inculcation of the idea that a professional gardener is nothing more than a servant.

Referring to the men who will take a position as gardener for the wages of an ordinary laborer, I do not think we need worry ourselves about the competition of these mongrel gardeners, for the competition is more likely to

come from another and higher direction.

It is no doubt a truism that lookers on see most of the game, and a man whose position enables him to see very clearly facts both inside and surrounding our profession, said to me early this year, "If you gardeners don't wake up you'll find your occupation gone." He alluded to the fact that men are graduating every year from colleges who have taken the course in agriculture and kindred subjects and who for that reason consider themselves fitted to take charge of private estates. This is the direction from which the competition is coming. If we wish to hold our own and obtain that full recognition and remuneration to which the requirements of our profession entitles us, we must take steps to put ourselves really in the professional class by acknowledging the value and necessity of scientific knowledge.

Employers are in many cases under the impression that a college man is necessarily better than one without college education. The college man lacks practical experience and until he gets this he will be as onesided as the practical man is without the scientific knowledge. In the latter part of July an advertisement for an estate manager contained the words, "No college graduate

need apply.'

Unfortunately the average practical man ignores the value of science. This has probably been caused by his confusing the facts of science with the mere theories of scientists. It is not necessary to attend a college to get a working knowledge of the scientific principles of our profession, for by attending the Fireside University we can place ourselves in the position of having a far wider and deeper professional knowledge than the man who goes through college before he has had any practical experience.

The best of us must realize that we do not know it all We must give more time to the reading of high-class technical publications and scientific text books. I have always thought it a great pity that a publication like *Garden and Forest* ceased to exist because it did not receive sufficient support from us. It was a thousand times ahead of anything published in this country both before and since; that it had to be given up was the reverse of creditable to the profession and proves how little is the general desire for greater technical knowledge.

At any rate we must open our eyes to the fact that scientific education in our profession has come to stay. Universities all over the world are placing farming, gardening and forestry in a position of greater prominence. Those who know what Oxford and Cambridge universi-

ties have stood for during many hundreds of years will realize this when they know that these have now placed our profession upon the same footing as all the other learned professions have previously stood. The importance of a wider education along these lines is now recognized in Britain by the fact that the possession of a diploma by those seeking positions as head gardeners is becoming imperative there. This will, I hope, be the case in this country before many years.

I am afraid my time has more than expired, but to sum up the matter we must realize that our future depends upon ourselves, and the first step in uplifting our profession must be that of rallying together and forming a strong association. We must grasp the fact that our position in the horticultural world is totally distinct and different from that of the other interests within it, we

shall have to stand or fall by ourselves.

Horticulture supports numerous societies, which it is unnecessary to recapitulate. Each of these societies have been formed for dealing with the special interests involved and for no other. All these societies can, and it is desirable that they should, cooperate with each other and with all in the interests of horticulture as a whole. But we must not forget that while cooperation is one thing amalgamation is something entirely different. Take, for instance, what the Rose Society has accomplished during he past few years. Supposing that roses, sweet peas, and all the other flowers having their own societies had all been in one society what progress would have been accomplished in connection with each of them? I venture to think very little.

Then take ourselves. The commercial florist has no more knowledge of our distinctive problems than we have of his. He has his own troubles which are obviously upon an entirely different plane to our own. If at any

nt our interests touch that is the place where we can cooperate. But no society has anything to gain, in fact, everything to lose, by amalgamating with any other whose work is upon an entirely distinct basis.

We desire neither patronage nor charity, and I should hope we have not yet reached the low stage of seeking people to do something for us. If a profession like ours, after existing for many thousands of years has not sufficient backbone to do things for itself, then the time has arrived when it might as well cease to exist altogether.

However strong any individual organization may become among those connected with its special interests, I do not see how that fact can do harm to any of the others

One is, however, led to think that there are persons within the bounds of horticulture who consider a strong and virile National Association of Gardeners a thing to be deplored. They appear to be jealous of the progress we are making, as if our growth were their misfortune.

If there are some who object to our "playing in their yard" it is of little consequence. Our yard extends from Maine to California, and no one need care a continental, so far as our professional interests are concerned, whether Boston, New York, Philadelphia, or any other city, is the Hub of the Universe; in this matter every one has a right to his opinion, but he must be manly enough to concede to others the right to theirs.

Taking horticulture as a whole, we occupy a far more important position than any other section of that industry. According to the census returns for 1900 (those for 1910 not being yet complete) gardeners numbered thirty-eight thousand and commercial florists seventeen thousand. Of course, the numbers are in both cases greater today, but there is no reason for supposing that there is any proportionate difference. No two distinct fields of work can possibly be served by one organization,

and if this were attempted the result could be nothing but barrenness in both.

To obtain any real and lasting benefit to our profession we must be loyal to our association, the national character of which is something more than a name, for we could hold a meeting in most any state in the Union and muster a good showing of local members.

Our secretary has been giving us a large amount of his time and money and has spared no effort on our behalf. Is all this to go for nothing? Are we so blind to our own interests as not to realize the immense good that a strong association, devoted solely and entirely to ourselves, can do us? I cannot believe that we are. On the contrary, I am convinced that our members have every confidence in the possibilities which await us if we are firm in our allegiance to our association. Opposition should only have the effect of increasing our determination to make the N. A. G. the strongest society in the horticultural world, and so to shape its policy that it will stand for everything calculated to make us proud of ourselves and of each other.

We must as individuals spare no effort to increase our membership, for, although we are receiving accessions every day, there are still a large number in our profession who do not fully realize all we stand for. Our duty to ourselves is to bring all fit persons into the fold we pos-

The hall has been set rolling to obtain the co-operation of estate owners and I venture to think that we shall secure this in a measure greater than even the most sanguine of us expect. If this is desirable then we must work together for the general uplift of our profession, and above all things we must keep clear of entanglements likely to retard our efforts and which will only have the effect of putting sand into the bearings of our car which we intend driving up the hill of progress.

Let our motto consist of one word—Excelsior.

Read before the National Association of Gordeness et Reston Misser, August 19, 1914

### PROPAGATING THE DAHLIA.

As the dahlia is deservedly a popular flower, and as the newer types bid fair to surpass the older ones in popularity, a few cultural and descriptive remarks pertaining to the various groups will perhaps interest lovers of the plant, and elucidate many mistaken ideas which in practice are injurious, and are, therefore, detrimental to the production of flowers, writes H. J. Moore in Canadian Florist. Ignorance of the proper methods of propagation is a deterrent factor as growers, with few exceptions, recognize but one method, viz., by division of the tuberous root stock. Plants so raised are not so vigorous as those propagated by means of cuttings or seeds, as they deteriorate more quickly, and in the garden or on the show bench their flowers are inferior, a fact which is evident at a glance.

Plants of any rare or valuable kind may be increased by cuttings during August or September. By this method it is possible to multiply the stock and so preclude the possibility of losing it during winter storage, which often happens where but one or two tubers of each variety exist. The cuttings should be lateral growths from the stem, not those bearing flower buds, and be prepared in the usual way by cutting below a node (joint) and removing the leaves at the base. When prepared they should be inserted singly in two-inch pots, containing sand, mixed with leaf soil, finely sieved, or inserted directly in sand in the bench, and after rooting be potted into three inch pots. If placed in a cool shaded greenhouse they will quickly form "pot roots" (small tubers), and when the

these should be stored away until spring.

In the case of the general stock spring is the time to propagate. The old tubers may, during March, be removed from their storage and placed in a gentle heat of 60 to 65 degrees F., under the influence of which young growths will be produced. Any or all of those may be removed from the parent tuber, and as cuttings he inserted in the propagating bench, or in boxes filled with sand. Shaded from sunlight they will quickly root and after potting will, by the planting season, form sturdy plants. Propagation by division should not be tolerated where first-class flowers are required, or where the facilities of a small greenhouse or window conservatory allow of propagation by cuttings or seeds.

The dahlia is capricious in that it does not always reproduce itself true from seed. As by this means new varieties occur, this method of propagation is most fascinating, and merits a trial by the grower. Plants from seed sown in a greenhouse, in April or early May, develop rapidly, are equal in every way to those raised from cuttings, and if the practice were annually adopted by those whose storage facilities are not good, much worry would be precluded. There is, however, one objection to the method, there is no certainty that a desirable variety will reproduce itself, but the anticipation, as every plant gradually approaches the flowering stage and the pleasure, as they individually unfold their petals, more than compensates for the time spent on their culture.

The dahlia requires a moderately heavy soil, with plenty of humus. A very heavy soil is not conducive to success, as the succulent roots are naturally unable to penetrate hard, stony or clay soils. Heavy soils, however, may, by the addition of humus, be improved to such an extent as to render successful culture possible.

Do not plant out of doors until danger from frost is past. Old tubers which have not started into growth may be planted and escape injury as long as growth does not appear above ground. It is, however, best in all cases to start tubers, whether young or old, in boxes or in pots some weeks prior to planting.

While the methods of storing the tubers differ somewhat there are two conditions which are essential to success, viz., a fairly dry atmosphere, and an average temperature of 50 degrees F. in the storage room. As dahlia tubers are especially susceptible to the attacks of fungus, which cause them to rot, the atmosphere should not be humid, and being tropical in nature, the plants must have a certain heat even when dormant. Under ideal conditions it is unnecessary to cover the tubers when stored away, but if the atmosphere is excessively dry it is good practice to afford a light covering of dry leaves or straw to prevent evaporation of the moisture from their cells. Do not place the tubers on cold concrete floors, or on damp earth, a laver of boards will afford protection from these. Water should not be given during winter, as it either excites growth, or causes disease. All plants should be examined at least every month, and diseased ones be destroyed.

### OUR COVER ILLUSTRATION.

The illustration on our cover page, reproduced from a photograph of the Palace of Horticulture, was taken at a point 125 feet above the ground, the photographer being stationed on the huge Tower of Jewels, which is 135 feet in height. The Horticultural Palace is one of the most remarkable and beautiful structures upon the exposition grounds. The building is 600 feet long and 300 feet wide. The huge dome in the center is 186 feet high and 152 feet in diameter. The architecture of the domes and minarets resembles that of the mosque of the Sultan Ahmed I. at Constantinople, while the details of plants have finished their growth the pots containing the facades, spires and other decorations reproduce the Eighteenth Century French Renaissance.

### CULTIVATION OF ENGLISH WALNUT TREES.

By Hollister Sagt

Cultivation of the English wannut is not only one of the newest but one of the most rapidly growing industries in the United States; and of course the reason for this is readily traced to the fact that this country is producing only about one-half enough of these

nuts to supply the demand.

The Persian walnut, commonly called the English walnut, was named "Nut of the Gods," nineteen hundred years ago, by the Romans, and by them was distributed throughout southern Europe, where descendants of these original trees are now standing—some of them more than a thousand years old-lasting monuments to the men who conquered these countries. In many places these same trees are producing a large part of the total income; in truth, the United States alone is importing more than five million dollars' worth of nuts from these trees every year, and about half a million dollars' worth of their timber. English walnut timber is very valuable, having a handsome grain and being unusually heavy, so heavy, in fact, that the green wood will not float in water. The wood is used in the manufacture of gunstocks and furniture, having a greater value than mahogany. Single trees have been known to sell for more than \$3,000.

Realizing the importance of having a home supply of English walnut trees, France passed a law in 1720 prohibiting the exportation of the timber. How well advised was this move may be appreciated now when it is known that the United States is importing yearly from southern France a large percentage of our total consumption of 50,000,000 pounds of English walnuts.

The Romans did not neglect England; for as a result of their invasion, many of these fine trees, hundreds of years old, are scattered along the roads and drives in every part of the islands. Some are nearly a hundred feet high with a spread of more than a hundred feet and bearing thousands of nuts for their owners every year. One tree is reported to be more than a thousand years old and to produce more than 100,000 nuts a year, being a chief factor in the support of five families. In England, by the way, it is customary to eat the fresh nuts, after the removal of the outer skin, with wine, the two dainties being served together.

The Germans, also, were quick to discover the great intrinsic value to their country of these trees, and very early formed the habit of planting a young English walnut tree to take the place of one which for any reason had been cut down. The Germans were also said to have promulgated in certain localities a law which required every young farmer intent on marriage to show proof that he was the father of a stated num-

ber of English walnut trees.

It is believed the first English walnut tree in this country was planted by Roger Morris in 1758 at what is now known as Washington Heights, New York City. George Washington must have found that tree in 1776. Just one hundred years later, Norma Pomeroy, of Lockport, N. Y., father of E. C. Pomeroy of the English Walnut Farms, found a tree in Philadelphia, possibly a descendant of the original Morris tree. Mr. Pomeroy's tree was loaded with an exceptionally fine variety of sweet-flavored nuts, thin-shelled and with a very full meat. That very tree, with Mr. Pomeroy's help, was the progenitor of all the English walnut groves in western New York, as well as of the many fruitful and ornamental trees now growing in all parts of the North and East.

Experts say there is no good reason why this coun-

try should not raise, at least, enough English walnuts for our own needs, and even export a few million dollars' worth. We are now importing more dollars' worth of these nuts than both Canada and the United States are exporting in apples—and this, too, when Canada and the United States are known as apple countries.

California is producing about 12,000 tons a year. That State's crop last year would have been more than 13,000 tons had there not been three days of extremely hot weather about the middle of September, the thermometer registering 115 in many of the walnut sections. This torrid period seriously burned about 2,200 tons of nuts.

The California growers do not have the frosts to open the outer shucks which we have here in the East, but they overcome this drawback in a great measure by irrigating a few days before the nuts are ripe. They begin the harvest the last of September, gathering the nuts which have fallen, drying them in trays for a few days, then taking them to the Association packing houses, where they are bleached and sacked. The Association does the shipping and marketing, the grower gets his check on delivery at the warehouse. For there is no waste and the nuts are all sold before the harvest begins; in fact, often oversold.

In some of the old missions of California there are English walnut trees more than one hundred and forty years old, with trunks four feet in diameter. There are many of these individual ancient trees throughout the State, but the oldest of the orchards are from thirty-five to forty years. Some of these trees have a spread of eighty feet or more and the growers consider that an English walnut orchard will bear

profitably for at least two hundred years.

If trees will do this in irrigated sections, they will live and grow much longer in unirrigated places, for it is well known that the roots of trees not irrigated go much deeper into the sub-soil and get the moisture and nourishment which this sub-soil furnishes. The roots of irrigated trees remain nearer the surface and are not

so long lived.

As an ornamental tree the English walnut is unsurpassed. It has a light bark and dark green foliage which remains until late in the Fall, being shed with the nuts in October and never during the Summer. It is also an exceptionally clean tree and beautifully shaped, and so far as known, has never been preyed upon by the San Jose scale or any other insect pest. This freedom from scale is attributed to the peculiar alkali sap of the tree.

The demand for this nut is increasing rapidly, as its great food value is constantly becoming better known. Its meat contains many times more nutriment than

the same amount of beef steak.

The price is keeping pace with the demand, the growers now receiving three times as much for a pound of nuts as they got a few years ago, when they were producing only a tenth of the present output.

Thus it may be seen that the planting of English walnut trees not only is an exceedingly lucrative venture for the present generation, but it means the conferring of a priceless boon upon the generations to come. Some States are considering the advisability of planting these trees along the new State roads, after the custom in England and Germany, where practically all the walnuts are distributed along the drives or serve as ornamental shade trees upon the lawns. There is one avenue in Germany which is bordered on both sides for ten miles by enormous English walnut trees.

which meet in the center, thus forming a beautiful cov-

ered lane and at the same time yielding hundreds of dollars' worth of nuts each season.

It is the custom in England and Germany to lease the trees to companies which pay so much for the privilege of harvesting the nuts, thus attaching to the trees a value similar to that of gilt-edged bonds, yielding a steady income to the owners with no work involved.

Besides the demand for the English walnut as a table and confectionery delicacy, they are often used for pickles, catsup and preserves, and in France, many tons a year are made into oil, furnishing a splendid substitute for olive oil.

### EDGING MATERIAL FOR THE PLANT HOUSE.

As with the outdoor department so is it indoors, suitable and well kept edgings to stages and groups of ornamental plants add to their general effect and manifest the taste and care of the grower. A window box or hanging basket is a crude affair without its hanging material, similar to the conservatory or show house with elevated benches, that present a show of piping underneath and other unsightly obstacles. Cement too, is playing an important part where some ferns or other green material not fit for pot room could be planted out under benches. Loads of cement is used in many a small garden to make broad walks and clean yards where flowers and grass could be utilized just a trifle more.

Edging plants are like taking full advantage of the fuel, as the plants themselves are out of the way, hanging down the sides of the bench, writes A. V. Main. When May arrives it is generally the scarcest plant around, as it is wanted so much for baskets, verandahs and boxes. For indoor purposes it is hard to beat Panicum Variegatum, and it lasts longer than most of them. The various variegated forms of Tradescantia are worthy edging plants. Their use is preferable to a display of rusty pipes and rickety piers, supporting a fine show of orchids, begonias or cyclamen. The lovely Abutilon Megapotamicum, with beautiful green and mottled leaves, likes the stove temperature. Ficus Repens and F. Radicans and Ruellia Portellae are but a few of the plants that have a tendency to droop. These are all so easily rooted in four or three-inch pots that frequent renewals are but right to replace old material that gets shabby and root-bound twice over. Vincas, Japanese Honeysuckle, Campanula Isophylla, Ghechoma Hederacea Variegata and Lobelia come more into prominence and general utility for summer baskets and window boxes. In winter these hardy common trailers when used for decorating the fireplace, facing up bare palms, brightening up some corner in the mansion or conservatory, add a final touch to decorations.—Canadian Florist.

# EUPHORBIA (POINSETTIA) PULCHERRIMA.

For bright color the Poinsettia has no rival during the Christmas season, and when the weather is mild, as it has been this season, it may be used with advantage either cut or as a pot plant. For the latter purpose, however, it is not all growers who succeed in having plants with good foliage down to the pots. In many instances the plants are propagated too early in the season, and before the time of developing the bright red bracts they have become too tall and also have lost their foliage, or at least all of the lower leaves, leaving a length of bare stem. I like to commence to propa-

gate as soon as good strong cuttings can be obtained, and then take the tops from these later on. Strong tops taken any time during August will, with care, root freely; they must be kept quite close where there is a good bottom-heat. Either a hotbed or the stove propagating-pit will answer, but at the season when the fires are not kept up it is perhaps better to rely on a hotbed. Shading is essential until the cuttings have taken root, and I should mention that as the strong tops are hollow between the joints, they must be cut quite close below a joint. These late-struck plants should be kept in heat throughout, but must be as close to the glass as possible, and exposed to all the sunshine. As soon as the bracts are beginning to develop manure may be used freely. It is only where careful treatment can be given that these late cuttings succeed. Those propagated early may be grown in pits, or during the summer they may be placed in a sheltered, sunny position. They will show no sign of losing the foliage if left out until the nights get cold, but they will, when placed in heat, lose nearly all their leaves, and the bracts will not develop properly. As soon as they begin to show color the more heat and light that can be given the better, and after they are well developed they may be gradually hardened off. When cut they should have the base of the stem dipped in nearly boiling water, which will drive the sap up and prevent bleeding. Thus treated they will last in a room for several weeks, even longer than on the plants.

−Exchange.

### ENGLISH IVY AS A COVER PLANT

The advantages of the English Ivy as a cover plant have not been fully appreciated and when known it will be planted more.

Its freedom from insect pests together with the ease with which it can be grown will appeal to every one who wishes to grow something that does not require much care, and which always looks green. The shade of green is very restful to the eyes and with the clean foliage makes it very desirable.

For shady places and among trees, where it is so hard to get anything to grow without large amounts of water, the ivy is very satisfactory. In such places it makes a heavy mat of green, which is very useful on sloping ground where the soil is liable to wash.

On parkings to take the place of lawn, it fills a long felt need. Outside of an occasional watering, and trimming where the runners creep over the edge it

requires no attention.

The English Ivy does best in a moist shady place, but will grow anywhere if it gets enough water to give it a good start. Plants grow readily from cuttings, but it is better to get plants already rooted. After planting cover the ground with a thick cover of well rotted horse manure (care being taken not to cover the leaves) and then water thoroughly. If the mulch is thick enough watering once in ten days is sufficient, providing the soil is level. Where the ground slopes, dig a trench above each row of plants. Do this before planting, as the young plants must not be disturbed once they begin to grow. Do not cultivate around the young plants as it keeps the runners from taking root. The Ivy will take root any place it touches the ground. If these rootlets are continually broken off the runners become sunburned and hardened. Every place a runner takes root serves as a new means to gather food and moisture, so the plant is able to grow more rapidly. —The Pacific Gardon.

-Selected.

# WHAT BULBS TO PLANT.

Not every person who calls himself a botanist is interested in the cultivated pets of the gardener, but everyone ought to have more than a passing interest in the spring flowering bulbs which hint of the coming of a milder season long before the wild species of field and wood confirm the fact. Still earlier than the flowers comes the bulb catalogue; in fact, if the weather is good it should appear in the early autumn along with the crocuses which, impatient for spring, are so early as to appear late. It is not impatience but necessity, however, that actuates the bulb catalogue, for if spring-flowering bulbs are not planted in autumn there will be no spring flowers. The bulbs of this kind need the autumn and early winter in which to make roots and get things ready for an early start. The old bulb grower needs no instructions regarding the selection of bulbs but the novice may be glad to have a few hints at the beginning. To such it may be said that while all the different kinds of bulbs offered by the dealer will grow and bloom, there are some that are much better for the beginner than others because they yield their flowers with a minimum of attention on the part of the cultivator. The best bulbs to begin with, then, are the tulips and narcissi. Crocuses are cheap and make a fine show against a background of bare earth or withered leaves but they are not available for cutting and are easily run out by stronger plants. Hyacinths are fine when in bloom but they, too, are not very persistent and often fail to bloom properly. The tulip is always on the job. Its large and brilliant flowers light up the grounds as those of no other early flowering bulbs can do, and they serve admirably for bouquets indoors. Tulips may be had in all colors except blue, with flowers either single or double. If the plants are set in beds, one may have two entirely different crops of flowers from the same area by sowing the tulip beds, while yet the tulips are blooming, with seeds of petunia, portulaca, poppy or annual phlox, which will give brilliant masses of color all summer. The tulips may be left in the ground after they have died down, and the next spring will come up stronger and brighter than ever. In recent years a new race of late tulips, called Darwin tulips, have come into the market. These have stems a foot or more long with flowers of many delicate shades. They are as easily grown as the commoner sorts. The narcissi are fully equal to tulips as satisfactory garden flowers. They multiply rapidly and a single bulb soon develops into a clump. None of the narcissi are difficult to cultivate, though the single varieties will doubtless give greater satisfaction than the double ones. The poet's narcissus is a favorite with many, and the Emperor and Empress are magnificent varieties. Among smaller bulbs the glory of the snow (Chionodoxa gigantea) with fine clusters of lavenderblue flowers is well worth a trial, and a curious little plant from Syria, Puschkinia libanotica, with white and blue-striped flowers, will make an interesting addition to the bulb bed. Any catalogue will list many other kinds of bulbs, but the ones here mentioned are least likely to disappoint the beginner without previous experience to guide him. Though the bleeding heart (Dicentra spectabilis) is not a bulb, attention may be called to the fact that autumn is the proper time to set speciments of it in some sheltered corner. This plant is a spring blooming species, but its smaller relative, Dicentra eximia, will produce its small pink hearts throughout the summer. In planting bulbs, they should be set in a light, well drained soil in a spot where the spring sun will find them. It will be well, also, if they have some protection from the cold north winds of early spring, though this is not a necessity. During the winter the bulb bed should be covered several inches deep with dead leaves, coarse stable manure or other litter and this covering should not be removed in spring until the bulbs insist on pushing up through it.—The American Botanist.

### THE TREES.

They are gone! O! implacable City,
'Twixt a night and a night,
With no pang of regret or of pity,
You have slain them outright.

Though their beauty besought you to spare it,

To keep it forever and wear it

For your own and your children's delight, You have fattened your greed and your merit The squalor your streets shall inherit. In their innocent glory and grace, They, the primeval lords of the place, Ere your earliest highway was trod, Had grown old in the service of God; And with arms lifted up as in prayer, Gave Him thanks for the sunlight and air, For the nourishing moss at their feet, And the thrushes that made their retreat In the heart of this Eden so long, For their lodging gave tribute of song. E'en the violets, dotting the sward, Breathing perfume of prayer to the Lord, Paid in full for their leasehold; but you— In the service of Mammon, you grew To a huddle of houses and mills, Spreading squalor through hollows and hills, Till your grimy arms reached through your smoke To this grove of the Poplar and Oak. They are gone! O! implacable City, Twixt a night and a night, With no pang of regret or of pity,

### \$206,000,000 SPENT ON ROADS IN 1913.

Though their beauty besought you to spare it.

You have slain them outright,

In 1913 there was a total expenditure of State funds for roads of approximately \$38,750,000. The local road expenditures, if a 10 per cent, increase over 1912 is correct, would amount to \$151,250,000. In addition, there must be counted approximately \$15,000,000 as the value of statute labor in working out the road tax. This makes a total outlay for roads in 1913 of about \$206,000,000.

In 1904 the total expenditures for labor aggregated a little less than \$80,000,000, so that the present annual expenditure for roads is more than two and a half times

as great as it was nine years ago.

The fact that the States for 1914 have appropriated nearly \$43,000,000, or an increase of more than \$4,000,000 over the 1913 appropriation, and an increase of nearly \$13,000,000 over the 1912 State appropriation, indicates an increased interest in the State development of good roads. The mileage of roads built with the aid of State funds to the close of 1913 aggregated nearly 21,000 miles, or only about 2,000 miles less than the famous national road system of France.

It is interesting to note that there are now but nine States that set aside no State funds for road building, and there are only seven States which now have no State

highway law.

Automobile owners paid in licenses and fees in 1913, \$7,820,895, nearly all of which was applied to road work. This sum is about one-thirtieth of the total State and local expenditure for roads.

# Park Department Organization

By Frederick Law Olmstead.

There are three sound principles of administrative organization which need to be more strongly emphasized and more effectively enforced in many Park Departments. These principles are: (1) To fix clearly the duties and responsibilities of each agent; (2) to make it unmistakable to whom he is responsible for the satisfactory performance of his duties, and (3) to give him enough discretionary authority to develop his own sense of personal responsibility for getting the desired results.

These principles are, of course, truisms. No administrative organization which ignored them could do business at all, and I do not mean to suggest that they are not more or less generally recognized in the work of our park departments; but certainly they are not always applied with the thoroughness and consistency characteristic of a first-class organization. In many park managements, the difficult and somewhat chaotic conditions incident to the beginning of organization and construction have doubtless led to the adoption of emergency measures for getting necessary work done by any means available, regardless of the requirements for permanently efficient organization. What is now often greatly needed is a steady insistence on these principles all along the line from the commissioners down.

As regards the commission itself, I believe that the prime function and duty of a park commission, indeed the only adequate justification for the existence of a multiple commission instead of a single-headed park executive, is to provide that broader and sounder wisdom in regard to the large problems and general policies which is to be had from the united deliberation of several minds brought to bear from different points of view. As an executive, one man unhampered by fellow commissioners but provided with adequate assistants is undoubtedly more efficient than a commission of five men, and the only valid reason for not putting a park system under the charge of a single-headed executive is that there is serious danger of his doing, no matter how efficiently, some very unwise things. The purposes to be accomplished in park work are so difficult of definition. so varied in character, and sometimes so conflicting, as to be very debatable matters of judgment, in regard to which any one man's views are more likely to be mistaken than is the joint opinion of five men of equal or even of inferior ability.

I feel very strongly, therefore, that what a park commission chiefly exists for is the *joint* exercise of deliberate judgment, controlling in wise directions the executive activity of its employees; and that the individual activities of the commissioners should be directed, not to the doing of any chores which employees could be hired to do for them, but mainly toward equipping themselves, personally, in knowledge of the conditions and otherwise, for taking the most effective possible part in the joint deliberations of the board. It almost inevitably happens that each commissioner is most familiar with conditions affecting the parks in that part of the city where he lives. and such familiarity is a useful part of his equipment. But the natural tendency to regard each commissioner as a representative of his own district, in the sense of a special pleader for the interests as against those of the rest of the city, is most deplorable. And, even though the character of the commissioners be such as to prevent anything like log-rolling, there is grave danger in permitting each commissioner to specialize as an authority upon the parks of his own district. In so doing, he is apt to remain rather superficially informed about the other districts, and, when a matter comes up that does not affect his own district, he is disposed to waive his own personal judgment and courteously to accept without question the authoritative opinion of the commissioner representing the district particularly affected. This attitude vitiates the essential deliberative function of the board, and imperils the unified development of the park system as a whole.

These dangers are not in the least fanciful. I have seen the work of many park boards suffering severely as a result of them. I am convinced, therefore, that, so far as practicable, the division of committee work among the members of the board should be made not on the basis of locality, but of kind of work. There may well be a standing committee upon music and amusements; a committee on playground work, presumably including the subjects of bathing, neighborhood recreation buildings, and kindred social services. Other groups of functions which suggest themselves as appropriate for standing committees are: finance, accounting, and acquirements of land; buildings and engineering structures; grounds. Different functional groupings of the subject matter might fit the personal interests and capacities of the several members of a given commission better than the above, but the principle would remain the same, each committeeman gaining a familiarity with and a sense of responsibility for the entire park system, and being in a position to contribute authoritatively from his special point of view to the discussion of nearly every problem, regardless of locality.

Because the board needs all the time and energy which its members can spare for keeping itself thoroughly informed, and for reaching wise, deliberate, unhurried decisions upon questions of policy, no executive responsibilities ought to be placed upon the individual members

which can possibly be avoided.

Unpaid commissioners can hardly be expected to give enough time to the work of the board or to acquire sufficient training in technical details to make it fair to place upon them as individuals the entire and absolute personal responsibility for executing the decisions of the board, even though each be provided with competent paid assistants, and even though each be relieved of personal executive responsibility for those parts of the work assigned to other commissioners. Commissioners in charge of a city government occupy a different position in relation to that work from the normal position of unpaid park commissioners in respect to park work. The city commissioners are expected to give substantially their whole time to the work, they are paid for their services, and each of them is required not only to take part in the deliberations of the commission as a unified controlling body, but to assume personal responsibility. as the executive head of his own department, for the efficient performance in the minutest detail of every duty assigned to that department. It is, of course, possible to organize the work of a park commission on the same theory; but my experience leads me to believe that it is seldom expedient, not only because it makes an unfair demand upon officers who are asked to serve without any pay, and is therefore likely to break down in practice and result in more or less shirking of duties and inefficiency, but still more because the pressure of executive routine and of personal responsibility for innumerable details makes it exceedingly difficult for a park commissioner who is subjected to such pressure to find the leisure and the detachment which is necessary for reaching wise conclusions upon the larger questions of park policy, and upon the general trend of results of the various operations of the department.

The peculiar difficulty in defining and keeping clearly in view the controlling purposes to be served by the various park areas, and the enormously large percentage of waste which is apt to occur in park work (without arousing general notice) through vacillation of purpose and through failure to keep any one consistent aim clearly in view from year to year in expending moneys for the maintenance and improvement of each piece of park land, make the above considerations more strongly applicable in park work than in most other departments of city government. In no other class of municipal work, I believe, is it so important that the commissioners in charge should free themselves to the utmost possible degree from the worry and tedium of executive detail, should place upon their subordinates the burden of settling the innumerable petty questions that arise from week to week, so as to be able to concentrate their own attention upon the larger aspects and tendencies of the work. In no other class of work is it so important that the board should act as a really unified deliberative body, and not as so many separate individual executives.

If this is not done attractive ideas for improvements and for changes in maintenance methods, whether originating with individual commissioners, or with employees, or whether urged upon the commission by outsiders, will be too easily adopted on their face value without sufficiently deliberate consideration of their relation to other ideas, and to the probable net results during the next twenty or thirty years or more. Important questions will be too frequently settled at the eleventh hour, under duress as it were, instead of being anticipated and settled right, because settled after mature delibera-

In other words, proposals which in essence involve changes of policy, changes in the plan of given park areas. changes in the kind of use to which given areas are devoted, and for which they may have been gradually perfected by laborious and costly maintenance work extending over many years, changes in the *character* of park areas which may involve greatly increased burdens of future maintenance cost—such proposals are too often authorized and put into effect at the instance of individuals without deliberate study of the probable consequences by the members of the board as a whole: while, on the other hand, the time and energies of the commissioners are too often occupied in settling details of method, for which the board's employees ought to be held responsible.

Of course, the commissioners must keep themselves informed as to the methods used by their employees, both for the purpose of judging whether the employees are really directing their energies toward the ends approved by the board and for the purpose of judging their efficiency. But keeping in close touch with the methods of an employee is one thing, and doing his work for him, or tying his hands by detailed orders, is another.

It is an excellent general rule that a commissioner is not to give orders to foremen and other subordinates except through the superintendent. To do otherwise is obviously subversive to discipline. But this rule ought to be carried a step further, and no member of the board should, as an individual, give orders even to the superintendent. Every member should be at liberty-indeed it should be his duty, especially in regard to the subject matter of his standing committee—to put to any employee suggestive questions calculated to bring out the reason or

the lack of reason for any course of action about the expediency of which there is any doubt; but it should always be made clear that the responsibility for accepting or rejecting any such suggestion rests entirely upon the personal judgment of the executive employee, within the limits of discretion allowed to him by his immediate superior; and it should be made clear also that the immediate superior of the general superintendent is not any one of the members who may choose to give him orders, but the board as a whole. Thus no one could weaken the absolute responsibility of the superintendent for getting the best possible results within the limitations fixed upon him by the votes of the board. He would have every benefit of the best counsel and advice which each member of the board could give him; but in taking such advice he would do so on his own responsibility, unless specifically directed by a vote of the board, and he could hide behind no one else's skirts if the entire results were

not just what he thought they ought to be.

Theoretically at least, the entire executive business should be carried on under a single responsible head, through whom all employees would be responsible to the board, and through whom they would receive their orders. It is of secondary consequence whether this administrative head bears the name and has the special technical equipment of a park superintendent or a secretary, or otherwise. In particular cases, there may be personal reasons which make it inexpedient to place all the executive employees under any one of their number as chief; but I hardly think an organization can be said to be in the best of shape without any recognized chief executive at all. In some cities it is necessary for the chairman of the board to act in this capacity. Sometimes the office of chief executive is made a nearly colorless means of transmitting instructions and reports between the board and its various executive employees, in which case there are obvious advantages in assigning the duty, along with other central clerical work, to the secretary. But commonly the superintendent is the most effective general executive. As such, it would be his duty to throw upon the head of each division under him as much of the entire discretion and responsibility and labor connected with the duties of that division as each could be made to carry with reasonable success. In his dealings with each of these divisions, he would constantly have the special counsel and supervision of a standing committee of the board. As previously stated, such a committee should not be empowered to issue orders, because to do so would weaken the responsibility of the general executive for the harmonious working of all the divisions, and also the responsibility delegated to each of the heads of divisions and through him to his subordinates; but whenever any committee felt it to be important that certain orders be issued and its suggestions to that effect were not accepted by the responsible executive officer, the committee would take the matter before the board, which would as a whole consider the wisdom of overruling the executive officer, and in so far curtailing his discretion and his responsibility for the results of the work.

Taking up now the question of fixing the limits of responsibility and of authority for the various parts of the executive force, I suppose the only lines of division which can be defined in such a manner as to preclude conflict through overlapping jurisdiction, and at the same time ensure that nothing shall fall between two divisions and thus escape from the responsibility of everyone, are territorial lines.

The lines separating one district from another can be defined beyond the possibility of doubt, and if the person in charge of each district is made responsible for everything and anything affecting the successful and economical

(Continued on page 186)

# Notes By the Way

By Wm. H. Waite.

Through the courtesy of my friend Mr. J. Brock, I spent a very pleasant afternoon recently visiting the estate of E. T. Bedford, Greens Farms, Conn., over which Mr. Brock presides as superintendent, and, having my camera along, I was allowed the privilege of making a few pictures, three of which, I think, might interest some of the readers of the Chronicle.

This magnificent estate is comparatively new, and is, I think, the best kept that I have ever had the pleasure of seeing. The photos will give an idea of the character of the place.

are few but large are filled solidly with Begonias Luminosa and Erfordi, and at the time of my visit made a most brilliant display. A fine boxwood hedge surrounds this garden and the dwarf box is used for edging the beds, while the banks are clothed with English ivy. In the centre of each half of this garden are beautiful beds of the choicest evergreens splendidly arranged and remarkable in coloring and growth to be so near the sea.

Photo No. 3 is a view taken from the public road, looking down on the herbaceous garden. This is a



HOME OF E. T. BEDFORD, ON HIS MAGNIFICENT ESTATE, GREEN FARMS, CONN.

Photo, No. 1 shows the house, with its handsome bay trees and with the sunken garden in front. The house is located only a few hundred feet from the Long Island Sound.

Photo No. 2 shows part of sunken garden; this is indeed a very pretty feature; the flower beds which

splendid exhibit of perennials harmoniously grouped, the building on the top of the hill being the garage, and superintendent's house. There are many features in this garden that are not noticeable in the picture, for this was taken as a bird's-eye view. A charming lily pool with the best varieties of aquatics is near the



SUNKEN GARDENS, E. T. BEDFORD ESTATE, SHOWING BEDS OF BEGONIAS AND EVERGREENS.

center. This pool is banked with Japanese iris, thousands of hardy lilies and other suitable plants. A miniature avenue, lined with standard geraniums, was another unusual feature. In this garden we noticed large masses of all of the best hardy plants available, the idea being to keep as fine a show as possible throughout the whole season.

Leading from the herbaceous garden to the greenhouses, we go through a spacious rose garden with a long pergola covered with all the best climbers. The range of glass is very compact and neat, and the stock was in fine shape; a house of melons being particularly fine. Around the greenhouses are large blocks near them and take note of the changing day. They seem to know every tiny sign of the varying seasons. All these things point to close observation, and must mean pleasure in the surroundings; for most people do thoroughly enjoy what they observe or study carefully. The discontent with any form of work is half knowledge or worse, a slatternly habit of thought about it. The country life has opportunities which many city people long for and which make the success of the famous naturalist. It is a limited existence only to the limited man or woman who neglects to take opportunity by both hands and find beauty and blessing.

— Exchange.



VIEW OF HERBACEOUS GARDENS, FROM THE PUBLIC ROAD E. T. BEDFORD ESTATE GARAGE IN THE DISTANCE.

of flowers such as Asters, Dahlias, Gladioli Antirrhinium, etc., grown for cut flower purposes. Here I saw the finest show of Antirrhinium that I have ever seen in this country.

After viewing the horticultural department, Mr. Brock took us in his car over the farm, over which he also presides. Here we found everything in splendid shape. The dairy is a modern building, most up-to-date in every detail. Everything on the estate is of the highest quality, and the splendid condition found everywhere on it reflects the highest credit on the able superintendent, Mr. J. Brock.

#### OPPORTUNITY IN THE COUNTRY.

Published among the alleged jokes in a recent magazine the reply of a farmer to his city boarder has more poetry than humor in it. The guest asked if the farm were not lonely in winter. The host, sweeping his hand abroad over the hills and valleys of New Hampshire, said in astonishment, "Lonesome? No! Why, on a clear day we can see Mount Washington." There is a popular belief that those who live in the daily presence of scenes like this grow indifferent to them, or perhaps have never felt the companionship of woods and mountains. But actual experience often brings one in contact with country dwellers who understand and love the beauty around them, though they may not be always ready to put their feeling about it into words. Farmers know the splendid points of view

#### GIVE OLD MOTHER NATURE A CHANCE.

Escape from the shop for a little,
No matter just where it may be.
Go out in the green woods and whittle
Or wander along by the sea.
Fly forth from the turbulent city
And all of its clangerous ills,
And list to the jovial ditty
Or birds on the burgeoning hills.

No matter how much you enjoy it,
Drop work for a moment and dance.
Go out for a little and "boy it"—
Give Old Mother Nature a Chance.
Be noisy and fresh, and be jolly;
Build castles of nothing but air;
Drop worry and blank melancholy—
Escape from vexation and care.

Go lie on the grass and just holler;
Go laze by the babbling streams.
Forget there's a thing called the dollar,
And live in your visions and dreams.
Like mist of the night, like a bubble,
Will vanish unquiet and fear;
And out of the sea of your trouble
Will rise the warm sunlight and cheer.
—John Keedrich Care.

THE

### GARDENERS' CHRONICLE

OF AMERICA.

Published by

#### CHRONICLE PRESS

Office of Publication

1 Montgomery St., Jersey City, N. J.

#### MARTIN C. EBEL, Managing Editor. EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.00 - :: Foreign, \$1.50 Entered as second class matter Tebruary 18, 1905, at the P st Office of New York, N. Y., in de . Vic. t. Corress of March 2018, 879

Published on the 15th of each month, Advertising forms close on the 10th preceding publication. For information regarding advertising rates, etc., address Advertising Department, Gardeners' Chronicle, Madison, N. J.

#### OFFICIAL ORGAN OF

#### ASSOCIATION OF GARDENERS NATIONAL

WM. H. WAITE, Youkers, N. Y. JAMES STUART. Secretors, MARTIN C. EBEL, Meles . N. 1

TRUSTFES FOR 1014.

Pete Duff, Orange, N. J.; William Kleinheim, O., a.v., Pa., William Duckham, Madison, N. J.; Alexander MacKenzie, Highland Falls, N. Y.; John H. Dodds, Wyncote, Pa.

#### DIRECTORS

DIRECTORS

To serve until 1915—John Shore, Harrison, N. Y.: Thomas Proctor, Lenox. Mass.; William N. Craig, Brookline, Mass.; Frank E. Witney, Fishkill, N. Y.; Robert Williamson, Greenwich, Conn.; F. Kirk, Bar Harbor, Me.; James Bell, New York, N. Y.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.: John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.: A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Montrello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President
GUSTAVE H. AMRHYN,
New Haven, Conn. ROLAND W. COTTERILL, Seattle, Wash,

CARL W. FOHN, JOHN HENDERSON, Colorado Springs, Colo. Montreal, Canada. JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y. CHARLES HAIBLE, Newburgh, N. Y. J. H. PROST. Chicago, Ill.

Vol. XVIII.

SEPTEMBER, 1914.

No. 5.

The incomparable opportunity which now confronts the American business man, in almost every line of effort. should act as a tremendous stimulant to our national prosperity, says Col. George Pope, president of the National Association of Manufacturers, the most important body of its kind in the United States, in the New York Times.

There are the markets which Europe has supplied and there is the market in Europe itself left vacant by the withdrawal from industry of millions of men and billions of capital. If we accept the gift of fate we can be prosperous beyond our dreams. Why not welcome it instead of fearing shadows? he asks.

The first thing to be done must be the mission of the press, lay and technical, to call the attention of the public to the fact that the United States is the only nation in the world today which has no excuse for business pessimism.

We must become optimists at a time when everything justifies it. We must do away with public worry. There is no excuse for it. We have been frightened by the other fellow's peril. That is not good judgment. It is the worst of judgment.

The alleged excuses for it are hard to discover and difficult of definition, says Col. Pope. They may be summed up in the words, poor business. That is, the public are not buying goods. With a public afraid to buy the merchant is afraid to lay in stocks, and the manufacturer is afraid to manufacture goods. Each one of these fears results in unemployment and thus unfortunately tends to transform the imaginary into fact.

No general depression can exist as the result of a disturbance local to one section or one line of activity. No unfavorable conditions which are general in any industry can fail to react in some measure upon other industries. Nothing is more contagious than doubt, nothing is so

enervating as fear.

We must be careful to be cheerful and hopeful if we want to be happy, and our own happiness will react upon unfavorable surroundings, tending to make them favorable. In other words, happiness will beget cause for happiness, and this is truer in business than in anything else.

Only when we are happy do we feel like spending money upon ourselves and families; only when we are happy does our happiness react on other people and make them feel like spending money. And unhappiness is a tremendous bar to man's efficiency in earning money. When we are not nationally happy we are not nationally prosperous, for we are not doin business one with another.

We are confronted with the certainty of a tremendously enlarged and highly profitable European trade, Asiatic trade is beckoning to us, there is every logical reason why we should assume control of South American trade. In the meantime, at home we have a year of bumper crops, we are the one great nation of the world not involved in the great war.

For us at this moment, when we are logically called upon to put forth our best efforts, and when we can gain much from so doing, to hang back, sulking and frightened by a bugaboo conjured up in our own imaginations and not elsewhere existent, would be for us to commit a national foolishness of unprecedented proportions and seriousness.

At the summer meeting of the National Association of Gardeners, held in Boston, August 19, 1914, a committee was appointed to draft a resolution conveying the sympathies of the members of the organization to the European horticulturists on the terrible calamity which has befallen them.

The committee reports its resolution as follows:

"Whereas, Our fellowmen engaged in the pursuit of horticulture in its various phases in the European countries are now surrounded by the horrors of a terrible war, many of whom may be suffering from sorrowing anguish for loss of kin on the battlefields.

"Be it Resolved, That the members of the National Association of Gardeners convey to their brother horticulturists in Europe afflicted by the war, their heartfelt sympathies on the catastrophe which has so suddenly overtaken them; and that our prayer be that the Almighty God in His infinite wisdom will guide the instigators of the appalling conflict now raging to a speedy termina-

tion of it and to everlasting peace.
"Be it Further Resolved, That copies of these resolutions be forwarded to the various national horticultural bodies in the several countries now at war, and spread on the records of the National Association of Gardeners."

William N. Craig, Duncan Finlayson, Martin C. Ebel.

### NATIONAL ASSOCIATION NOTES

W. H. WAITE, President, Yonkers, N. Y.

#### OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

#### PROCEEDINGS OF MIDSUMMER MEETING NATIONAL ASSOCIATION OF GARDENERS.

The mid-unaner meeting of the National Association of Gar deners was held in Paul Revere Hall, Mechanics Building, Boston. Mass., at 1 o'clock p. m. Wednesday, August 19, 1914, under the presidency of G. W. Waite, Yonkers, N. Y., Martin C. Ebel, Madi son, N. J., officiating as Secretary.

Mr. William Kennedy, of Boston, Mass., 're ident of the Gardeners' and Flor'sts' Club of Boston, eally, the meeting to order

and addressed the convention as follows:

#### Address by William Kennedy, President, Gardeners' and Plevists' Club, Boston, Mass.

Gentlemen of the National Association of Gardeners: We well come you to the city or Boston in behalf of the Gardeners' and Florists' Club. I sincerely trust, gentlemen, that your visit today, and for the next few days that you are here, will be both educational and instructive to you in your line of business

Great stress has been laid on the fact that the so-called Canvention Garden in the Back Bay Fens has been put there by the Society of American Florists and Ornamental Horticulturists. Gentlemen, I assure you that without the co-operation of the gardeners who planted that stuff, the Convention Garden and I speak knowingly, as I am one of the Executive Committee of the Boston Horticultural interests-would not be the success that it is today. It is true that the trade send their goods there to be planted, but they send no instructions how they should be planted or where they should be planted, but simply to plant them. With the able assistance of one of the best gardeners in this country, Mr. Trenneth Finlayson, that garden today is what we term, or what you might term, a success, inasmuch as it looks well from the gardener's standpoint; but I have no doubt but that all of you might go through there and improve the Convention Garden. This, of course, could not be said anywhere else. The general impression of the public in Boston today is that the garden is a beautiful piece of work. It is for the time that the committee had to do it in. There is no use of anyone criticising at this time the work of the gardener.

Gentlemen, the thought has often occurred to me as to how long the National Association of Gardeners is going to be a parasite of the Society of American Florists. The time has come, gentlemen, when we have got to break away from these kindred bodies and hold conventions of our own. There is absolutely no reason why the gardeners of this country cannot get together and have just as interesting if not more interesting conventions than the Society of American Florists. There are thousands of thousands of gardeners that would be only too pleased to build up this organization if we could get them in through the distribution of some proper literature whereby we could induce them to become members, and in that way we could get delegations from different States so that we would be able to run a convention equal to if not better than those of the S. A. F. It is pretty nearly time. gentlemen, that something should be done along that line. intelligence of this body is superior to the intelligence of any body connected with this business. It is true that the Society of American Florists takes in the gardeners inasmuch as they add to the membership of the S. A. F. For the past six months in Boston the matter of affiliation has been up, the question was whether or not you were going to try affliation.

There is no need of affiliation. As far as affiliation goes the two departments of the business, to my mind, are separate. One grows flowers commercially in order to make a living; the other grows flowers to please his ladyship, or the man he works for. The gardener takes care of a large estate, and he buys from the members of the so-called Society of American Florists, and he

sells nothing; he has nothing to sell.

It is not my intention, gentlemen, to keep you very long this afternoon. I know you have a business meeting to carry on, and you have other things to attend to, and it is not the desire of the Gardeners' and Florists' Club of the City of Boston and the kindred interests to interfere with the regular conduct of your meeting; so I now take great pleasure in introducing your President, Mr. Waite.

President Waite addressed the meeting as follows:

#### Opening Remarks by President Waite.

Mr. Kennedy and Gentlemen: I am very much indebted to Mr. Kennedy for his very kind remarks. I am pleased to see so many

here. Very important business can be transacted even without large numbers present, but I am much pleased that so many have turned out.

Mr. Kennedy is a little at tault in implying that we have never had a convention, ior is you all know we have held several conventions entirely apart from the S. A. F., and wholly under

our own responsibility.

We had a very successful convention last year in November in New York, and the Executive Board this morning passed a resolution to hold the next convention at Philadelphia in Decem-This convention will be under our own auspices entirely without any connection with the S. A. F. or anyone else. The convention this year will last for two days, and Mr. Logan promises us a very good time in Philadelphia.

I hope the convention there will be largely attended. I hope to see as many of the New England, and particularly the Massa-

chusetts, men as we can get.

I have great pleasure in presenting to you a man who has come all the way from California to attend this meeting Mr. Daniel MacRoric. Applarse.)

#### Remarks by Daniel MacRorie, of San Francisco, Cal.

Mr. President and Members of the National Association of Gardeners: The Panama Pacific and International Exposition of San Francisco, Cal., sends you its greetings and invites you to convene in San Francisco in 1915, when we celebrate the opening of the great canal. We have a number of things to show you out there that will interest and entertain you, especially along horticultural lines and agricultural lines, such as our big trees and the great agricultural pursuits of that State. I will say that Pacific Coast Horticultural Society will be glad to have you come there next season. We hope you will all come. We will give you all a good time, and there is no doubt but that we will add at least fitty people to your ranks. I thank you, gentlemen. (Applause.)

MR. W. N. CRAIG, Brookline, Mass.: I think it is but due Mr. MacRorie that we take this action, and I move that the National Association of Gardeners hold its 1915 mid-summer

meeting in San Francisco next year.

Motion seconded by Mr. Ebel, carried and so ordered.

MR. MACRORIE: We have a fine lot of gardens out there and

a fine lot of fellows

PRESIDENT WAITE: Mr. Aithur Smith, of Reading, Pa., was to be here this afternoon to read a paper. He sends a letter expressing his regret at his inability to attend the convention to which he has been looking forward with pleasure. He encloses a copy of his address, and trusts that the convention will have a good attendance and an increased membership. If it is the wish of the meeting, while we await the arrival of some of the other gentlemen who are to address us, Mr. Ebel will kindly read this paper. Is it the wish of the meeting that this paper be

There being no objection, it was so ordered, and Secretary Ebel read the paper by Mr. Arthur Smith on the subject of "The Profession of Gardening." (This paper is printed in full elsewhere in the columns of THE CHRONICLE.)

PRESIDENT WAITE: You have heard this very interesting paper by Mr. Arthur Smith. We will be glad to hear any remarks that any of the members may have to offer.

MR. THOMAS W. LOGAN, Jenkentown, Pa.: I move that this very able paper be received and that a vote of thanks be tendered Mr. Smith.

Motion carried and so ordered.

PRESIDENT WAITE: I think that Mr. Ebel also deserves a vote of thanks for reading the paper. It was rather serious work. SECRETARY EBEL: We will pass that up. That is the Secretary's duty.

Mr. Theodore Wirth, President of the S. A. F. & O. H., now came into the hall and was introduced by President Waite.

President Wirth was received with applause.

MR. W. N. CRAIG, Brookline, Mass.: At the present time, and as we are all aware, the nations of Europe, or at least most of them, are waging a tremendous war which cannot but have a disastrous effect upon horticultural interests there. I have a resolution drawn up which I wished to present here this afternoon, but I unfortunately left it at home. It was worded in substance as follows:

Resolved, That we, National Association of Gardeners, convey to the national horticultural bodies of Europe our good wishes. good cheer and our sympathy in the present distressful times. I move that a committee of three be appointed to draw up a resolution along those lines and forward it to the several horticultural societies on the other side.

The motion was seconded with applause and duly carried.

PRESIDENT WAITE: I will appoint as that committee W. N. Craig, Brookline, Mass.; Duncan Finlayson, Brookline, Mass., and Martin C. Ebel, Madison, N. J.

President Theodore Wirth, of the Society of American Florasts, will favor us with a few words.

### Address by Theodore Wirth, Minneapolis, Minn., President of the S. A. F. & O. H.

Mr. President, Fellow Members of the National Association of Gardeners: I want to tell you that I am exceedingly glad indeed to be with you. You are, so to speak, an Eastern association, because you have very few members, if I am not mistaken, out in the West; but in that you are somewhat in the very same position with the American Society of Florists and Ornamental Horticulturists, although the latter society is of thirty years standing. So I want to tell you that that you need not feel discouraged that you have not very many members yet in the Far West. You all understand that the Far West is away behind, in a good many respects, the Far East. It is a newer country. the West you have to travel hundreds of miles before you find a private estate which would anywhere near compare with such estates as we find right around here near Boston, or elsewhere in the New England States. But that simply means that the time is coming when there will be a great opportunity for we gardeners to help to build up that great Western country; and I want to tell you, my friends from the East, that if you get too crowded out here, do not hesitate to come out West. You may not find places all laid out for you, but you will have the pleasure and the privilege of laying them out. I have not listened to any great part of the paper written by Mr. Smith, but from some discussion that I have noticed in the trade papers and a few remarks that I have listened to, I believe I know what the gentleman had to say to you; and I want to say that I believe I know-and I talk from experience-that if the gardener of today is underpaid, and if his labors, his knowledge and his experience are not appreciated, it is to a certain extent at least the fault of the gardener himself.

I want to tell you that the Far West offers a fine opportunity for the gardener to go out there and build up places and make a demand for positions for good gardeners to fill.

Now the National Association of Gardeners, I think, should make it a point to help gardeners out all it can; but it should not try to help a man that cannot help himself. A man must be able to help himself. If he can help himself, the Lord will help him, there is no question about it. (Applause.)

Some twenty years ago I was what they called a greenhorn in this country. I am glad that I was a greenhorn, and that I was brought up on the other side, and had to serve a good hard apprenticeship. And what is more, I had to work for three years for nothing, and my father had to pay for my board. I have always been glad that I had that hard work to do when I first

decided to become a gardener.

I came over to this country, and I was directed to go out to Long Island some place—I will not mention the place. I have told this little story once before in Boston. It was one of the finest places in Long Island at that time. I went out to the gentleman on Saturday afternoon, and we walked around the place all afternoon. I was delighted with the work that had to be done there. When we got all through the gentleman was ready to go back to town, and he asked his head man or manager there to show me my room. He took me up above the horse barn to a little bit of a room with a window in it not any bigger than that ventilator over there—no light. no air, no anything. I said, "What is this?" The manager said, "That is your room." I said, "You go and tell the gentleman that unless I get a decent room to live in I will go right back to town and stay there;" and the gentleman said to his manager, "Give him the best room you have in the house and I will pay for it." that gentleman thought much more of me because of the stand that I took than if I had submitted to that kind of treatment. All you have to do, my brothers, in your business is to stand by your guns. If you demand proper recognition, you will get it. As long as you submit to everything you will not get it. There is nobody to blame but yourself.

And now I want to say a few words in regard to the S. A. F. You know that the S. A. F. is a commercial organization. It is the strongest organization that we have today in the States; and I am personally of opinion that we ought to branch out to a great extent in the work that we are doing; but I do not believe that the majority of the members see it that way. When you have a horticultural society that you can make use of, which has existed for thirty years, has a national charter, and is recognized all over the country as a progressive association, I would like to see that association made use of by every branch of

horticulture.

I believe that affiliation ought to be brought about, not necessarily by a large membership, but by giving every organization that is progressive and has a good active membership representation on the Board of Directors of the S. A. F. Each of the affiliating organizations can through its membership on the Board of Directors express its own views and obtain recognition for whatever objects it has in view. So I hope that your Association will take this matter under careful consideration and send a director to our S. A. F. Board of Directors in due time.

I do not want to make use of my present position as President of the S. A. F. & O. H. to try and unduly influence you here; yet I ask this of you, that you learn what we are trying to accomplish and whether you can see your way clear to help us to accomplish what I have in mind, namely, a national association ultimately which will represent and minister to the needs of every branch of horticulture. If you can help us to bring that about, then I will feel that I have been amply recompensed for my appearance and efforts before you here today.

Now, gentlemen. I do not want to take up any more of your time. I thank you very kindly for listening to me so long.

(Applause.)

#### Response by Secretary Martin C. Ebel, Madison, N. J.

Mr. President and Fellow Members: I want to say a few words in answer to President Wirth, of the S. A. F., who is also a director of the National Association of Gardeners.

would suggest to him that when he goes back to his home in the West he will not forget that in the National Association of Gardeners we have competent men who are willing to go West if the opportunity offers. I believe that the estate owners are willing to pay fair prices, but they have not yet been fully educated up to it, and many do not know the difference between a garden laborer and a gardener. In the National Association of Gardeners' Service Bureau we have had three instances recently where estate owners have called for men for \$75 or \$80 a month. In each case we refused to recommend a man unless they would pay \$100. And they replied, "Find the man such as you describe and I will be glad to pay such a man \$100, but I have never come across such a man." The men that were recommended by the Service Bureau, I am glad to say, are all giving satisfaction, and one has already had his pay increased. The great difficulty is that when a position is in the market and gardeners find out about it, their applications pile in and they compete with each other, offering their services for a low price in order to get the position. There was an instance in New York this year where a man had been engaged on the recommendation of a landscape architect to take charge of a large estate. The owner offered the applicant \$125. He would not accept less than \$150, and was engaged at that figure. The vacancy about that time became noised about, and within three days there were 65 applications, none of them asking higher than \$75. One man wrote that if he could get "the job" he would be willing to take it at \$40 per month, and show the owner how he could make some money out of his place. Then the owner went to the landscape man and asked, "Don't you think I am paying too much; don't you think I can get gardeners at a lower price than you thought I could?" And so the trouble often rests with the gardeners themselves. They compete with one another.

I want to say to Mr. Wirth that we are going to San Francisco next year, and that we are spreading out. I move that we tender a rising vote of thanks to Mr. Wirth for his address to us

this afternoon

Without waiting to have the question put to vote, the entire meeting rose and greeted Mr. Wirth with applause.

MR. WIRTH: I want to thank you gentlemen, and I want to say just one more word, and that is this, that I am very glad to hear that you are coming to San Francisco. The S. A. F. voted to go there. The election was carried by one vote. I believe we could have gotten more votes if we had wanted to. If you people want to get acquainted with the florists it is absolutely necessary for you to go there. The S. A. F. calls itself a national association. If we are a national association we will have to try and cover the entire country. In the same way, you call yourselves a national association, and if you are going to call yourselves national, you will have to go all over the country. I am very glad that you as a very young organization have the courage to do what an association of thirty years standing seems to have been a little timid about doing. (Applause.)

have been a little timid about doing. (Applause.)
PRESIDENT WAITE: Professor E. A. White, of Cornell, has just entered the room. He will have a few words to say to the

boys present here.

#### Remarks by Professor E. A. White.

Mr. President and Gentlemen: I did not expect to say anything, having just come in here a moment ago. I wanted to know what was going on. I asked of Mr. Ebel what I should say, and he said, "Just give us a few words of good cheer." I presume that you know that I am located at Cornell, and that we are trying to do something in the way of promoting horticultural

interests there, and more especially in my line of floriculture. We are trying to give our gardeners as well as florists there an all-round education. We lay out our course so that we can include a course in professional floriculture. We also aim to give a good training in garden flowers and general plant work. need the help of not only the New York men, but of all the men interested in the gardening profession, so that we can build up as we plan to do there at Cornell the strongest course in floriculture and gardening given anywhere in the country.

I said that I had not expected to say anything; but I am very glad to extend the greetings of New York State, and especially of Cornell University, to the National Association of Gardeners.

MR. JOHN YOUNG, Secretary of the S. A. F. & O. H., next read an essay by Mr. Arthur E. Thatcher on the subject of "What Should the Society of American Florists Do for the Private Gar-

Reverting directly to the gardener, Mr. Thatcher writes:

Although we are at the moment chiefly concerned with what the S. A. F. can do for the private gardener, we might also for a moment see what the society has done for him. no doubt that the exhibitions held by the S. A. F. in various parts of the country during the last few years have been the finest the country has ever seen; and these have been produced by the cooperation of the commercial and private growers. How much ther they could have been had the private gardeners been more enthusiastic can only be imagined. Certain it is that they have been of great educational value, and are yearly growing more so. Cannot the private gardener learn much from them?

Our president, though he may be the foremost park superintendent in the country, will not be offended if I class him as a private gardener. What shall we say of the rose garden he has constructed at Hartford? Is it not the finest example of its kind in the world? And what of the out-door garden he made at Minneapolis? Are such things not of the highest educational value, and calculated to be of the greatest assistance to the private gardener, if he will only profit by them? . . . It may seem strange to some, but it is nevertheless true, that some of the men who have been most prominent in the society's affairs are, or have been, private gardeners. I have only to mention such names as Farquhar, Roland, Fisher or Totty, who are well able to tell us what advantages have accrued to them by their association with this society. No one will imagine for a minute that the society has made them what they are today. This has been accomplished entirely by their own efforts; and I believe this is the crux of the whole question regarding the private gardener. For the society to be of use to him he must endeavor to become an important factor in the society. .

I cannot help thinking that the question of helping the private gardener very largely depends upon the private gardener himself; and to be of any assistance to him, any small feeling which may exist must be forgotten so that we may all, commercial and private gardeners alike, pull together for the common good. It seems to me this powerful organization is fully equipped and fully capable of looking after all classes of the profession if we all work harmoniously together. Can we not do this and help forward the good work of this society and the grand old profes-

sion of horticulture?

PRESIDENT WAITE: Gentlemen, we will now throw the meeting open to general discussion.

The papers by Mr. Smith and Mr. Thatcher were now thrown

open for discussion.

MR. JOHN BURNS, New Canaan, Conn.: In my opinion the future gardener is the one that starts at the stoke-hole and climbs up for eight or nine years in a first-class place under a

first-class man, and then takes a course in college.

MR. WIRTH: I think that is a very good point. That brings out something that I am very glad to have you bring out, because it involves the question of what benefit colleges are to us, how do they help us? I believe that the good they are doing is underestimated. My personal belief is that if a man could serve an apprenticeship the way one has to serve in the old country, when he arrives at the age of 20 or 21 he will begin to realize that education will help him; and if then he goes to college he will get practice and theory properly combined. I have three boys, and they all hate to go to school. They like to be out in the open. I let them go now, but when they get to be 20 or 21 they will realize that they have to have education, and they will be glad to go to school and get the advantage of school training.

MR. BURNS: The reason that I placed practical experience before the college is that if they go to college first when they get through going to college they do not feel like settling down to shoveling coal. They do not feel like going out and taking care of frames; they do not feel like shoveling cow manure, if you please; but let them get the hard work first, and then take a little course in college. Then they will have both experience and theory. In fifteen years from now there will be a lot of college fellows coming out, and those fellows will be stepping

into our shoes.

MR. WILLIAM DOWNS, Chestnut Hill, Mass.: I believe that that is quite true and that the speaker's point is well taken; but I do not think that that is the American spirit as I have seen it in the last twenty years. We shall not always get our gardeners from across the water, and I think there is no question but college men will enter into the profession. My employer is a college man, and he invariably brings that up. But we have had more than one sad experience with college men. He says that we want a college man provided he is a good man, but if he is not a good man the college man is all the worse for being a college man. Now, you will find it very difficult to find a man that has gone through the stoke-hole and the rest of it making up his mind to spending two or three years in college. That is not the American spirit. The American spirit is to "get there" without any apprenticeship, and we must give them credit that they do "get there," not only in our profession but among all workmen. They do not make the finished workmen that the old country apprenticeship system does, but they "get there" just the same. And it is that spirit that we have to look to. We are living under the Stars and Stripes, and no matter where we were born we have got to "get there."

The average young man after he has been in the stoke-hole for 7 or 8 years wants to be superintendent. The average greenhouse man that we get today from the other side who takes an interest in the green-house stays right there; he will not go across the lawn to see what is going on. I had a job two or three years ago where a very difficult piece of work was being accomplished not more than 200 or 300 feet from my green-house. I said to my men, "Have you seen what they are doing there?" They said they had not. Now, that is the kind of men that are going out to fill positions. We have had to put up a lot of buildings since I have been on the place, and my men knew nothing more about building after the building was done than they did before it started. That is the trouble with the average gardener. He does not look out for himself. He takes no interest in what is going on around him. If you want to advance you must get knowledge; you must get information. There are lots of things that I did not know when I went into the work, and there are lots of things that I do not know today; but a general man on an estate must know a little bit about electricity. He must know when a painting job is done thoroughly. My employer came to me not long ago and said, "Go into my house and do what you think is necessary." If he thought that I did not make myself familiar with the general run of work, he would not have trusted me to do that. He would have brought in someone else.

Make yourselves familiar, gentlemen, with what is going on about you; make yourselves worth just a little bit more than your employer is paying you. There are too many crooked men in this business, and too much crooked work going on. When I got my present employment I went to my employer and said, "I want so much a month, and when we make a bargain if I get tired of the job I will come right to you and say so." He said, "That is fair." When I got to the point where I thought I was worth a little more money I said, "I think now your place is worth a little more to take care of." He said, "How much?" I told him, and he said, "That is all right; I will date that back two months." Give your employer a square deal every time. I want to tell you gardeners that that is the point I make, that you should be perfectly straight with your employer. Put confidence in your employer and he will do what is right by you. The man who does the straight and right thing has nothing to fear. Do not be afraid to ask for what you want. As President Wirth said, they will give you what you want if they get a square deal. Too many men try to see how little they can do. Two or three years ago I was in Florida, and I found that the first idea of the negro is how little he can do and get away with it. Do not be in that class; make yourself worth something. I have never had any thoruble in getting anything that I wanted in reason. If you make yourselves worth it, the average employer will appreciate you. (Applause.)

PRESIDENT WAITE: This is a very profitable discussion, gentlemen, and I hope you will continue it.

MR. N. Y. PAYNE, Philadelphia, Pa.: I believe that honesty should count above everything else. The next thing is to keep on the job. The next thing is to make all the inquiries you can possibly make and learn all you can. Good college men with practical experience are like good seed, in that you cannot keep them down.

MR. P. W. POPP, Mamaroneck, N. Y.: Gentlemen, I am also believer in the gardener giving his employer a square deal. I believe, as Mr. Downs said, that if you make yourself worth the money the employer will recognize it. Of course, there are isolated cases where it is the other way; but a man that can make good generally has the option of going elsewhere. I have had my employer come to me and say, "Your work is very satis-That is a whole lot for an employer to say. That is my own experience. I believe that a man must know something about the stoke-hole, for if you delegate all of your work to some

one else you will not know whether they are firing right or wrong. It I live near by green-house I can see how the firing is being done; but a man who does not know how the firing should be done will not keep that sort of a watch on it. The gardener should know about many little details that mean much to the comfort of the owner.

#### Remarks of W. F. Gude, Washington, D. C.

Mr. President and Fellow Gardeners and Florists: I do not happen to be one of the college boys, and I do not happen to be a private gardener, but just one of the boys who started in the

stoke-hole and went all the way through.

I want to say to you, gentlemen, that we are employing on an average of eighty men commercially, and we have not a man or boy, no matter what his pay is, that we would ask to do anything that we are not willing to do ourselves. It is all how you take your work as to whether you make a pleasure out of it. I have been much impressed by some of the remarks made here as to the importance of knowing just how things should be done. In most every instance it will be found that people who are fond of flowers and can afford to hire private gardeners have nice homes and have at least a fair endowment of the humane instinct, and they will treat their men fairly. We had at the National Capitol for upwards of fifty years a private gardener, if you please, as superintendent of the United States Botanic Gardens, a gentleman who was born a poor Scotch boy, entirely too poor to go to school. As he grew up he educated himself, and with the first sixpence of his own that he had to spend he bought a copy of the works of the poet Burns. You will all remember that Bobby Burns was a gardener, and he drew the inspiration for many of his poems from nature. Mr. Smith finally came to Washington, and for the fifty odd years that he was superintendent of the United States Botanic Garden he did more in the halls of Congress and at the National Capitol in the way of disseminating knowledge of our work and ennobling our profession than any other one man that I ever knew anything at all about. And even up to the time when he passed to his Heavenly reward he was still the same plain man that he had always been, yet he was privileged to share the invimacy of such men as Andrew Carnegie at Skibo Castle and with other distinguished men; yet he never wished to be known as anything more than a gardener, and he was mighty proud of it. There was not a man or women living that was too proud to speak to Mr. Smith, or that he was too poor to associate with. His life presents an example that fits in nicely with Mr. Smith's paper that we have had.

Although I am not a private gardener or a horticulturist, but simply a plain ordinary florist who has grown from the ground up to my position, everything I have got I owe to my own endeavors, yet I like to feel that if duty calls me, or if I can do some good for my fellow-man, I thank God that He gives me strength to do all I can to help the other fellow along. (Ap-

plause.)

Now, even if Mr. Smith has passed to his Heavenly reward, I am not through working for him. While there might be many who can take up the proposition better than I can do and do what I am trying to do, yet I received in the last two or three weeks letters from California, from Maine, from New York, from the South, and all over, euclosing contributions to erect at the National Capitol a memorial to the late William R. Smith, which shall not only be a magnificent tribute to one of the best private gardeners, if you please, and horticulturists that I ever knew, but I believe one that did more to elevate the horticulture profession and the gardeners' profession, the tree men's profession, if I might use that term -because he is largely responsible at the National Capitol for the finest treed city on the face of the globe, in which his work lives after him.

So my mission today is to do all I possibly can to the end that within a few years there shall be erected at the National Capitol a memorial to the late William R. Smith, Superintendent of the United States Botanic Garden, that will be a fitting tribute to the man who did so magnificently for his country. While he was a true Scotchman, he was a thorough American, and we want this memorial to not only be a tribute to him but one in which every gardener of the United States and every member of any organization of florists or horticulturists can take pride; a memorial that when you look upon it you will say, "That was a grand man. I am proud of my profession for recognizing and rewarding such a man."

Let us not forget that Mr. Smith always took greatest pride in the fact that he was only a gardener, a member of one of the grandest professions on the face of the earth, because, as he used to say, it linked the finite and infinite and tends continually to uplift mankind and make man purer and better.

In thinking over the life of Mr. Smith it was borne in upon me that he more than any man I have ever known exemplified the lines of his favorite poet. Bobby Burns, that are so well known to all of you "The rank is but the guinea's stamp. A man's a man for a' that."

You know the rest of it.

Gentlemen, let us get together, and whether we can give little or much, contribute to the memorial at the National Capitol; and it is my hope that in the near future we shall have at the National Capitol there a magnificent memorial of that representative gardener. William R. Smith—a memorial that shall be an education for future generations and a tribute to the plain, simple and homely virtues of William R. Smith. I thank you. (Applause.)

MR. EBEL: Mr. Chairman, I move that the National Association of Gardeners open a subscription list and permit those of its members who may desire to subscribe to the William R. Smith memorial fund to do so. In this way we will aid the Society of American Florists in providing a suitable memorial for Mr. Smith.

The motion carried unanimously.

PRESIDENT WAITE: Is there any further business?

Mr. Vernon T. Sherwood, Charlestown, N. H., brought up the subject of a big white worm about two inches long that was doing some damage in his section, and proposed remedies for this and other worms were discussed by Messis. Sherwood, Craig. Downs O'Brien, Popp and others.

MR. O'BRIEN: I think that if the members of the National Gardeners' Association had a badge or button of some kind to wear it would increase the national spirit. It would indicate to other members that he belonged to the organization, and he would receive recognition the same as the Masons or Odd Fellows or something like that.

MR. WM COLLINS, Boston, Mass.: One of the gentlemen over here spoke of a National button. Personally, I think a little button would not be a bad idea at all of a suitable design, to be worn by every member of the Association. We are doing all we can to popularize this society, and the button is one way of doing it. It is a cheap method. For instance, some of us are wearing the S. A. F. button, which indicates that we are members of that Association; but if you meet a gardener you do not know whether he is a member of the National Association or not. If we had some identifying badge, we would know each other, and when we met a member we could talk with him on subjects congenial to both. On motion the subject of an Association button was referred to

On motion the meeting now adjourned without day.

the Executive Committee.

The following were among those in attendance: W. H. Waite, Yonkers, N. Y.; Martin C. Ebel, Madison, N. J.; Thomas W. Logan, Jenkintown, Pa.; William Anderson, South Laneaster, Mass.; J. Canning, Ardsley, N. Y.; Daniel MacRorie, San Francisco, Cal.; Theodore Wirth, Minneapolis, Minn.; R. Williamson, Greenwich, Conn.; E. J. Norman, Lenox, Mass.; Robert Johnson, Smithborough, Mass.; George Westland, North Andover, Mass.; C. B. Turner, Roxbury, Mass.; John S. Hay, Philadelphia, Pa.; Trenneth Finlayson, Boston, Mass.; George F. Stewart, Medford, Mass.; Robert Dougherty, West Medway, Mass.; Vernon T. Sherwood, Charleston, N. H.; Andrew Wilson, Springfield, N. J.; William E. Picthall, Dover, Mass.; William Angus, Buzzard's Bay, Mass.; Andrew Keith, Chestnut Hill, Mass.; J. Smith, Swampscot, Mass.; P. M. Miller, Boston, Mass.; James Marlborough, Topsfield, Mass.; James Stuart, Mamaroneck, N. Y.; Luther Webb, Dedham, Mass.; David Weir, Rosendall, Mass.; W. N. Cruig, Brookline, Mass.; John Dugnid, Wellesley, Mass.; C. H. Hallier, Hopedale, Mass.; A. J. Newell, Hopedale, Mass.; E. M. Ross, Morristown, N. J.; George W. Hess, Washington, D. C.; George Mason, Elberon, N. J.; P. W. Popp, Mamaroneck, N. Y.; William Downs, Chestnut Hill, Mass.; Alexander Michie, Plymouth, Mass.; James Hamilton, Warwick, R. I.; N. Y. Payne, Philadelphia, Pa.; John T. Burns, New Canaan, Conn.; John J. O'Brien, William Powns, Chestnut Hill, Mass.; Alexander Michie, Plymouth, Mass.; Luke O'Reilly, Madison, N. J.; John F. Huss, Hartford, Conn.; William Plath, San Francisco, Cal.; William Collins, Boston, Mass.; Luke O'Reilly, Madison, N. J.; John F. Huss, Hartford, Conn.; C. N. Tolin, Colorado Springs, Colo.; William F. Gude, Washington, D. C.; John Young, New York, N. Y.; Prof. E. A. White, Ithaca, N. Y.; Oscar Carlson, Fairfield, Conn.; William De Bree, Rutherford, Conn.; William Cruickshank, Boston, Mass.; William Kennedy, Chestnut Hill, Mass.; William Plumb, New York.

# ANNUAL CONVENTION, PHILADELPHIA, DECEMBER, 1914.

At the executive meeting of the board of trustees and directors held at the Copley Square Hotel, Boston, Wednesday morning, August 19, it was unanimously voted to hold the next annual convention in the city of Philadelphia during the first week in December. The convention will be of two days' duration; the business meeting to be held on the first day, followed by a banquet in the evening; a bowling contest in the morning and seeing Philadelphia in the afternoon of the second day.

# MIDSUMMER MEETING IN SAN FRANCISCO,

At the mid-summer meeting of the association Daniel MacRorie, of San Francisco, Cal., presented an invitation from the Panama-Pacific Exposition Company and from the Pacific Coast Horticultural Society, of which H. Plath, of San Francisco, who also attended the meeting, is president, to have the National Association of Gardeners meet in San Francisco next year. Mr. MacRorie, among other things, urged that favorable action would result in material increase in membership on the Pacific Coast and that as the association is a national one it should not confine itself to sectional limits in holding its meetings. It was voted unanimously that the association hold its mid-summer meeting in San Francisco in August, 1915.

#### NEW MEMBERS.

The following new members have been added to the roll during the past month: Carl N. Fohn, Colorado Springs, Colo.; James A. Wilson, Lake Forest, Ill.; William Anderson, North Adams, Mass.; Gustave Hamerin, Glen Cove, L. I.; George Willis, Stockbridge, Mass.; James Davidson, Tuxedo Park, N. Y.; Henry J. Watson, Tuxedo Park, N. Y.; Robert Cameron, Cambridge, Mass.; John G. Duguid, Natick, Mass.; M. J. Pope, Naugatuck, Conn.; William H. Robinson, Norfolk, Conn.; John L. Smith, Swampscott, Mass.; Albert J. Newell, Hopedale, Mass.; William Angus, Buzzards' Bay, Mass.; J. L. Porter, Villa Nova, Pa.; David Fraser, Pittsburgh, Pa.; James Marlborough, Topsfield, Mass.; Edgar A. Slote, Middletown, N. J.

#### BRITISH GARDENERS' ASSOCIATION.

The most representative meeting the association has ever held took place at the Thatched House Hotel, Manchester, on July 25. Delegates and members were present from New, North London, Leannington, Blackburn, Leeds, Sheffield, Altrincham, Central London, Birmingham, Dublin, Manchester, Accrington, Oxton, Liverpool, Bolton, Northampton, Bradford, Nantwich Hampton, and other places.

The Chairman, Mr. Gerald W. Butcher, had a good reception when he rose to open the conference, and wel-

come the delegates.

Great enthusiasm was evoked by the reading of the following message from comrades abroad:

Madison, New Jersey, July 17th, 1914.

To the Members of the British Gardeners' Association. The members of the National Association of Gardeners (of Imerica) greet you at your Innual Conference, and as brother gardeners extend to you the right hand of fellowship in the cause for which we are all striving—the elevation of the oldest profession on earth—that of gardening.

As there is strength in unity, all gardeners should unite in an effort to uplift their profession and to gain for it the recognition to which it is justly entitled. While the conditions which govern the gardeners in the United Kingdom and in America are not alike, there are, however, many opportunities for co-operation between the gardeners' national associations for the general betterment of gardening; so we extend to you an invitation to join us in the co-operative movement which we are about to inaugurate in the United States. Your co-operation would make it international.

WILLIAM H. WAITE, President, M. C. EBEL, Secretary.

Journal of B. G. A.

### AMONG THE GARDENERS

Peter Duff, of "Brighthurst," Orange, N. J., who was on a visit to Scotland at the outbreak of the European war, arrived home safely a fortnight ago. Mr. Duff intended to return in time for the summer meeting of the National Association, but was delayed by the war and consequently could not get back in time.

Arthur Griffin, who was reported in the last issue of THE CHRONICLE as having accepted an appointment as superintendent of a New London, Conn., estate, is in charge of the Landers Estate, of that place. Extensive alterations are contemplated, which will include a new range of glass.

Joseph Robinson has resigned his position as superintendent of the estate of Colgate Hoyt, Oyster Bay, L. I., to take effect October 1, when Mr. Robinson will assume the superintendency of the Coe Estate, of the same place.

John Dodds, of the Wanamaker Estate, Wyncote, Pa., arrived home from Europe on the 13th. Mr. Dodds was accompanied on his vacation by his daughter, Isabelle. Their pleasure was, of course, marred by the breaking out of the war.

Advices received from William Kleinheinz, of the Widener Estate, Ogontz, Pa., who was in Germany when the hostilities broke out, state that he expected to leave for Philadelphia on the 5th inst. via Rotterdam.

George H. Penson has resigned his position as foreman in charge of the fruit growing department of Duke's Farm, Somerville, N. J., to take charge of the Johnson Estate, New Brunswick, N. J., on October 1. Some important improvements are to be instituted on this place. A. W. King succeeds Mr. Person in his position at Duke's Farm.

Alfred E. T. Rogers, has been appointed superintendent of Judge William H. Moore's estate, at Pride's Crossing, Mass. Mr. Rogers was formerly on the estate of the late Ex-Governor Draper at Hopedale, Mass.

George Wyness, who was erroneously reported in the last issue of THE CHRONICLE as in charge of the Moore Estate, still holds forth as superintendent of the Henry C. Frick Estate, Pride's Crossing, Mass., which is famous for its beautiful lawns and rock gardens.

A postal recently received from A. A. Macdonald, superintendent of Duke's Farm, Somerville, N. J., stated that he expected to sail from England for home on the 14th inst.

William Westland, for the last five years with C. H. Parker, Cotiut, Mass., and previous to that with Francis Blake, of Auburndale, Mass., will on October 1 take charge of Mrs. Wadsworth's estate at Genesco, N. Y. Mrs. Wadsworth is a sister to Mrs. Parker, his former employer.

The employees on the estates of E. D. Brandegee and Larz Anderson, Brookline, Mass., played a game of baseball on August 29. The weather was disagreeable and damp, but a good game resulted in a victory for the Anderson team of 27 to 14. A football game which was to have followed the baseball game was forfeited by the Anderson team who refused to play on damp ground.

### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. S. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

By the action of the Executive Committee at a special session held in New York City on August 27, the matter of the selection of an official organ for the association, which matter had been by action of the convention, referred to the Executive Committee with power to act, was settled by the acceptance of a very attractive proposition made by the representative of the *Gardeners Chronicle* and by unanimous vote this publication was selected as the organ of the association.

By action of the convention, the official organ hereafter will be sent only to those members who are in good standing, so those who are in arrears should remit promptly if they expect to receive the official organ.

Through the courtesy of the publishers, the September number of this publication is without expense to the association, being sent to every name on the membership roll whether in good standing or not, also to all persons who attended the convention. However, beginning with the October number, the magazine will be sent only to those who are in good standing as certified by the secretary.

Our department in the magazine this month will be given over to a review of the Newburgh and New York convention, but beginning with October the secretary hopes with the assistance of correspondence and contributions from members, to maintain a section of the magazine which will be of general interest.

ROLAND W. COTTERILL, Secretary-Treasurer.

Seattle, Washington.

SIXTEENTH ANNUAL CONVENTION, AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS, NEWBURGH, N. Y., AND NEW YORK CITY, AUG. 24-27, 1914.

Lie sixteenth annual convention of the American Association of Pari, Si perimendents opened at Newburgh, N. Y., on Monday

afternoon, August 24, and concluded in New York City on Thursday night, August 27.

The executive board met at the headquarters. The Palatine Hotel, on Monday afternoon and disposed of the business before it. In the evening the general meeting was called in the Young Men's Christian Association Building. President H. S. Richards presided. Mayor Corwin, of Newburgh, welcomed the members to his city, referring to it as the home of Downing, for it was there that he was born and made his home. At the conclusion of Mayor Corwin's remarks, that the members may find where Downing lived and worked and found inspiration, an atmosphere so congenial to the work of the convention that it might accomplish much of profit and benefit and that they may take with them when they leave no memories but pleasant ones, he was heartily applauded.

heartily applauded.

Mr. William Cook Belknap, representing the Newburgh Board of Park Commissioners, was the next speaker. He referred to his pleasant meeting with the members of the association at their convention in Boston two years ago and of his seventeen years' association with the Newburgh parks system, which has led to intimate acquaintances with men engaged and interested in park development.

President Richards briefly responded to the addresses of welcome, saying "it is quite evident that the good citizens of Newburgh will entertain us royally while we are in their midst and will give us an occasion to remember for some time to come the happy hours spent among them. The members of the association will, I am sure, unite with me in expressing our appreciation of the efforts of these good people to make our convention a notable success and in extending our gratitude for the hospitality shown us during our stay here." With the greetings ended the actual business of the convention was then taken up.

Secretary Levison submitted his annual reports and reported that the association was in better condition financially than it had been for years. Some discussion arose regarding the expenditures incurred in the publication of special bulletins, and it was voted that the matter be referred to the Executive Committee. The Auditing Committee reported that it had approved the accounts of the secretary and treasurer, which were voted to be received and placed on file.

W. S. Manning, chairman of the Committee to Revise the Constitution and By-laws, submitted his report on the revision of Section 11, Article 11, of the Constitution concerning qualification for membership in the several branches and duties of the members. This led to a lively discussion, pro and con. the question being finally put to a vote and the recommendations of the committee to revise the by-laws were adopted.



CONVENTION OF AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS AT TUNEDO CLUB, TUNEDO PARK, N. Y

The secretary reported that the Executive Committee had recommended the following candidates for membership: Arthur P. Perley, South Bend, Ind.; Warren H. Manning, Harrisburg, Pa.; R. H. Huntington, Council Bluffs, Iowa; M. C. Ebel, Madison, N. J.; John B. Corwin, Newburgh, N. Y.; Henry H. Eckert, Niagara Falls, N. Y.; James O. Howard, Castile, N. Y.; E. S. Letts, Denver, Col.; Arthur A. Deischgald, Chisholm, Minn.; David Campbell, Syracuse, N. Y.; Nelson Crist, Atlanta, Ga.; Edward A, Philbrick, Detroit, Mich.; Robert L. Parker, Hartford, Conn.; Frank Hamilton, New York, N. Y.; George W. Hess, Washington, D. C. The applicants were elected to membership by unanimous yote.

President Richards named William J. Zartmann, New York City; Theodore Wirth, Minneapolis, Minn.; Emil T. Mische, Portland, Ore., a Committee on Nominations for the selection of can-

didates for officers for the ensuing year.

Prof. Frank A. Waugh, professor of laudscape architecture of the Massachusetts Agricultural College, Amherst, Mass., was next introduced and presented a brief sketch of the life and works of Andrew Jackson Downing. He paid a glowing tribute to the great master of landscape gardening. Referring to the life of Downing, Prof. Waugh said: "Andrew Jackson Downing must be remembered to us first of all as a nurseryman. It was in this field that his life began. In this field he learned great lessons which yielded him the most substantial and obvious help in other lines of work. Moreover it was through his nursery work that he reached and profoundly influenced hundreds of men in other parts of the country. It is probably true that Downing's stanchest personal disciples were the men who formed their attachment to him at this point. His architectural work was of very considerable consequence. While undoubtedly it represented that part of his thought which has proved of least worth to us in our generation, yet it was credited in its time with far-reaching influence for good. In any study of his intellect and character it is obligatory to take into the account the wide, serious and fruitful study which he gave to this subject.

"His literary fame rests upon a most substantial basis, seeing his product had both matter and style. He had real first hand information to communicate. Much more than that he had sound personal opinions a product of careful personal study by a most extraordinary mind. This information and these opinions were offered to the world in the best literary dress of the times in a

style clear, finished and distinguished.

"The feature of his services to us, and one which seems to have been widely overlooked, was his practical establishment in America of the profession of landscape architecture as it is now fashionably called, though he always spoke of it under the good old English terms of landscape gardening. Other men had undoubtedly practiced this art in America before him, but his genius soared so far above all else that had ever heen done as to put the whole profession upon a new plane.

Out of this story which we necessarily trace with much difficulty of the personal influence of Downing in the beginnings of the profession there emerges, however, one conspicuous incident. Calvert Vaux has already been mentioned as coming to America in 1850 to be associated with Downing in his professional work. This very able and well-trained young architect doubtless had a considerable influence upon his acute and impressionable partner; but it is quite certain that the strong qualities of Downing left their imprint upon Vaux. The professional work undertaken by them jointly was continued by Vaux after Downing's death. And then, a few years later another most fortunate juncture occurred when Vaux in his turn became professionally associated with the late Frederick Law Olmsted. With the long and notable career of Olmsted landscape architecture became an established and recognized profession and one in which the highest ideals were so firmly fixed as to never again be lost or obscured. The triple association of Downing, Vaux and Olmsted forever formed the great opening chapter in the history of the landscape profession in America.

Mr. Oglesby Paul, landscape gardener at Fairmount Park, Philadelphia, Pa., was on the program to deliver a lecture on "The Preservation of Natural Woodland Under Park Conditions." Owing to illness Mr. Paul was enable to be present, but he had sent his paper and views, which were projected on a curtain from a stereopticon, to Mr. Herman Merkle, of the New York Zoological Gardens, and who read the paper. Mr. Paul's paper entered into the various phases which surround the upkeep of the woodland, saying, "To preserve natural woodlands under city conditions is a costly and difficult work, perhaps the most difficult of all park maintenance. And," speaking of conditions in Philadelphia, "the funds are far too small to handle the situation properly, but interest in it is steadily growing to all departments of the city government so that now we find the city engineers deflecting streets and sewers to save forest growth on areas likely to be acquired for park purposes. No artificial park landscape, even though planned by a forester, has ever approached the noble dignity and infinite loveliness of our Eastern forests, and surely none of these is fairer than our Wissahickon, so we feel that they are worth all and more than they cost to preserve.



SHOWROOMS OF COLDWELL LAWY MOWER COMPANY, CONVERTED INTO BALLROOM FOR SAMERICAN ASSOCIATION OF SUPERINTENDENTS, CONVENTION

Mr. J. J. Levison supplemented this fecture with another illustrated talk in which he described briefly the methods employed in other cities in carring tor park lands.

other cities in caring for park lands.

Owing to the lateness of the hour, much time having been taken up in the discussions and the reading of papers, it was decided to postpone the election of officers until Wednesday morning when another husiness session was called on the steamer which took the members to Bear Mountain Park. The meeting adjourned to convene again on Wednesday morning.

#### Tuesday, Trip to Tuxedo Park and Harriman Estate.

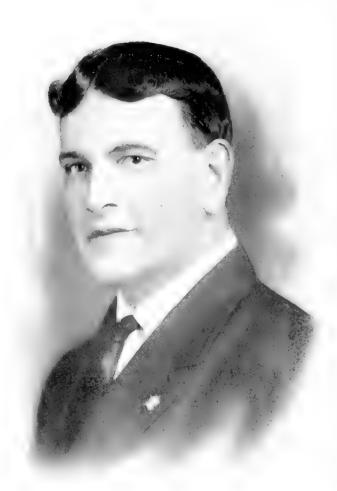
Tuesday, August 25, was given over entirely to pleasure by the visiting members. A visit to Mt. Beacon, one of the highest points in the vicinity of Newburgh and famous from Revolutionary times was enjoyed by the early risers. The trip was made at 7 a. m., in order to return in time for the automobile trip which was scheduled for 10 a. m. Shortly after that hour some lifty-odd automobiles, provided by the citizens of Newburgh, left the association's headquarters, The Palatine Hotel, for a tour of the city, visiting the home of Andrew J. Downing, Downing Park, Washington's headquarters, and many of the historic places for which Newburgh is famed. En route through the city the visitors were entertained by citizens, who threw open their gardens and homes for inspection.

At noon the pilgrimage to Tuxedo Park began through Tuxedo valley. There was no prescribed route, each chanffein using his evar judgment, the only requirement being that all should arrive at the club grounds as near 1 o'clock as possible. The day was an ideal one ter an outing of this sort. Arriving it Tuxedo Club the guests were escorted to the dining room, where an excellent lunch was served. Following the luncheon the members and friends assembled in front of the clubhouse for a photo of the party, after which they returned to the automobiles for an inspection of Tuxedo Park. The passage around the lake was a series of surprises to all. Along the lake are located some of the linest private estates in this section of the country. Leaving the Park the trip was continued to Mrs. E. H. Harriman's private estate, at Arden. This place is located on top of one of the



G > AMRYHN, SUPERINTENDENT OF PARKS, NEW HAVEN, CONN.

1 lected President America, Association of Park Superintendents,



R. W. COTTERILL, SECY PARK COMMISSION, SEATTLE, WASH, Elected Section 1 (Superintendents). Superintendents.

mountains and the winding roads leading to it required some ability on the part of the drivers of the automobiles, especially on the return. From the Harriman estate a magnificent view of the surrounding country was obtainable. The party arrived back at Newburgh early in the evening.

#### Reception at Coldwell Lawn Mower Building.

The visit to Newburgh culminated in the reception given in the spacious factory building of the Coldwell Lawn Mower Company on Tuesday evening. It is estimated that some fifteen hundred people attended, this including many of Newburgh's residents. The salesroom was beautifully decorated with bunting and plants. An orchestra furnished music for the dancing, while those preferring cards found the offices prepared for them with card tables arranged about the spacious floors. During the evening those who desired were escorted through the building to inspect the plant. A military band was located on the park grounds surrounding the factory on the river side, which was beautifully illuminated. An open air concert was provided and some of the guests enjoyed dancing on the green sward.

While the reception was at its height the Newburgh Yacht Club surprised the visitors by honoring them with an illuminated naval parade. The club's fleet sailed past the plant shortly after 9 o'clock, each boat elaborately decorated, and in passing whistles were sounded and salutes fired, concluding with a fireworks display from some of the floats on the river.

Messrs. W. H. Coldwell, H. W. Marshall, H. P. Coldwell and E. C. Ross received the guests as they arrived at the building and after their arrival left nothing undone to make them feel at home.

President Richards, in speaking to the press of the meeting at Newburgh, said; "We expected considerable from the character of the people we have met at our conventions from your city, but the greatest of our expectations were not up to what you have done for us. You have shown us people with hearts so large that they seemingly fill the entire body; you have shown us buildings of local and national historical legends; we

have traversed grounds sacred to every American heart; we have visited a park that was apparently designed by Nature's God as a fitting ornament to the crown of the queenly city in which you live. We have been entertained, dimed, amused and made to feel that we were in reality brothers and sisters of the 'Newburgh burch,' and best or all we have had the largest meeting in the history of our association. Much is due to the enthusiasm aroused by your local park hoard and our associate, the superintendent of Downing Park. There has not been a minute of the time that we have not had some one of the members at our beck and call, each desirous of offering some kindness, or doing something that would lighten our labors or make our visit more pleasant. To your mayor, Mr. Corwin, to your Park Board, Messrs, Belknap, Smith, Leonard and Coldwell, to Mr. Haible and to the local press the thanks of the association are justly due. I appreciate all that has been done, and I voice at the same time the appreciation of the American Association of Park Superintendents."

#### Wednesday, Trip to Bear Mountain Park.

On Wednesday morning the association became the guest of the Hon. George W. Perkins, president of the Inter-State Park Commissioners. The steamer "Albion" was boarded at Newburgh

at 10 o'clock and proceeded down the Hudson River.

Immediately after leaving Newburgh the business session was called to order and the election of officers took place. The nominating committee reported its ticket as follows; For president, Gustave II—Amthyn. New Haven, Conn.; G. W. Burke, Pittsburgh, Pa.; for secretary and treasurer, J. J. Levison, Brooklyn, N. Y.; R. W. Cotterill, Seattle, Wash.; for vice-presidents, John W. McLaren, San Francisco, Cal.; Herman Merkel. New York, N. Y.; Carl M. Fohn, Colorado Springs, Colo.; Charles Hable, Newburgh, N. Y.; Charles B. Carpenter, Milwankee, Wis.; F. L. Mulford, Washington, D. C.; J. H. Prost, Chicago, Ill.; M. A. Moore, Toledo, Ohio: E. P. Griflith, St. Louis, Mo.; John Henderson, Montreal, Canada; E. R. Mack, Wilmington, Del.

The following officers were elected: Gustave H. Amrhyn, president; H. W. Cotterill, secretary and treasurer: Herman Merkel, John W. McLaren, John Henderson, Carl M. Fohn, and

J. H. Prost, vice-presidents.

Invitations for the next meeting place were called for, and Secretary Levison reported that he had several invitations from Chambers of Commerce and Boards of Trade from various cities. Daniel MacRorie, of San Francisco, Cal., presented an invitation from the President of the Panama-Pacific Exposition Company and from John McLaren, Superintendent of Parks, San Francisco. inviting the association to convene in San Francisco next year. After several members spoke in favor of going to the Pacific Coast next year, it was unanimously voted to hold the next convention of the American Association of Park Superintendents in San Francisco in 1915.

A hearty vote of thanks was tendered J. J. Levison for his untiring services rendered to the association while serving as its secretary during the past two years, following which the meet-

ing was adjourned.

The first stop was at West Point, where the party had an bour to visit the various points of interest at the famous U. S. Military Acidemy. From these the steamer proceeded directly

to Bear Mountain Pick where the party was received by Mr. Perkins and entertained at bunch by him. Following the lunch Mr. Perkins briefly outlined the work of the commission, of which he is chairman. The Inter-State Park comprises land in the he is chairman. The Inter-State Park comprises land in the State of New York and New Jersey, ten thousand acres of which being the gift of Mrs. E. H. Harriman, who has also generously contributed \$1,000,000 for development work. Some 18,000 acres have been given by the States of New York and New Jersey. A grand boulevard to be known as the Hendrick Hudson Boulevard is now under course of construction from a point on the New Jersey shore opposite New York City to Newburgh, N. Y., a distance of about sixty miles. Bear Mountain Park is maintained for the people of New York City, a regular line of steamers being operated between the city and the park, which is about forty miles up the river. Mr. Perkins explained that it is the purpose of the commission to provide an outing place for New York City people where they may spend a day at a nominal cost. The restaurant is maintained by the commission, where food is provided at nominal prices, as is also the fare on the steamers. Sites are laid out for camping purposes, for which there is no charge, though a permit is required from the secretary of the commission.

From Bear Mountain Park the steamer proceeded down the Hudson River to New York City, where the members disembarked to meet again the following morning.

#### Thursday, Meeting in New York.

The members assembled at the Hotel Astor, the headquarters of the convention in New York City, at 10 o'clock on Thursday morning. In the absence of Mayor Mitchel of New York, Hon. Henry Bruere, City Chamberlain, welcomed the gathering to New York City. He was followed by the Hon. Cabot Ward, president of the New York Park Board. Mr. Ward in his remarks urged closer co-operation between the practical men of the parks, the park superintendents and the executive staff, the commissioners. President Richards responded fittingly to the addresses of Messrs. Bruere and Ward, after which the members adjourned to the hotel entrance where automobiles were in waiting to convey the party on a sight-seeing trip through the park system of New York City. Proceeding up Broadway to Central Park, through it to Riverside Drive, Van Cortlandt Park, Mosholu Parkway to New York Botanical Gardens, the Zoological Gardens were reached at noon. After viewing the Zoological Gardens the party became the guests of the New York Zoological Society at luncheon.

The newly elected officers, constituting the executive board of the association, met during the stay at the Zoological Gardens for the purpose of organizing. It voted to adopt the Gardeners' Chronicle of America as the official organ of the association in

place of the publication heretofore representing it.

Following the luncheen the party re-entered the automobiles and, passing many of the smaller parks and playgrounds of New York City, proceeded to Brooklyn and Prospect Park. After stopping at several points of interest in Brooklyn's famous park, they continued by way of the Eastern Parkway to Coney Island, where the evening was spent visiting the various places of amusement. This concluded the 1914 convention, one of the most successful in the history of the association.



(Continued from page 173.)

maintenance and operation of that district in all respects, nothing is left uncovered. Of course, the districts will be altered, combined, subdivided, and otherwise changed from time to time as circumstances render advisable, just as the foreman in charge will be occasionally shifted from district to district; but at any one time the responsibility of each foreman should be complete and exclusive as to his own district and the limits of the district absolutely definite. His discretionary power must be limited by instructions from the superintendent, but it should be made clear to him that it is his duty to call the attention of the superintendent specifically to any limitation or adverse condition which in his opinion needlessly and unreasonably interferes with his getting the best possible results. If there is anything in his district which is not as it should be, and which is beyond his power to correct, either through lack of means or lack of authority. he must put the question squarely up to the superintendent or it will remain up to him.

. It is obvious, however, that where such a large variety of technical questions are involved as in park work, such a simple territorial division of duties and responsibilities is not in itself sufficient. It would imply a range of specialized technical skill within each division which it is impracticable to secure. Such specialized skill must be concentrated in centralized staff departments, each specializing on a certain class of functions, regardless of locality, but all working through or in collaboration with the foremen of the local districts. In so far as any staff department works through a local foreman, it transmits to that foreman all the necessary orders concerning the functions under its charge, and inspects his execution of the same; thus the engineering department transmits to a local foreman the instructions of the superintendent as to the building of a road, in the form of stakes set in the proper locations and at the proper grades, and inspects his work to see that it conforms to the instructions. In so far as any staff-department works not through a local foreman, but in collaboration with him, it relieves him of the direct performance of a part of the work of his district; thus the engineering department not only sets stakes for a pipe line in a park as the local foreman is not equipped to do the work but the engineering department may also furnish a special pipe gang working entirely under its orders, and transferred by it from one district to another as occasion requires.

In thus superimposing a functional division of duties and responsibilities upon the basic territorial division with which we started, there is a real danger of confusion and of weakening the clear sense of personal responsibility on the part of the local division foreman necessarv to efficient service. This danger is the more obvious when we consider that, in addition to the engineeringstaff department, there must be departments specializing on other subjects, such as the improvement and care of lawns, plantations, etc., the repair of buildings, etc.; and that it is impossible to define the scope of such functional departments exactly, as can be done with a territorial division, so that there is always more or less overlapping and conflict of authority between them. In order to minimize this danger, it should be made absolutely clear that, while the local division foreman must presume any instructions received from a staff-department to be a proper interpretation of the intention of the chief executive, vet, if it appears to him that any instructions in regard to his territory issued by any staff-department tend to conflict with those issued by another staff-department or lead toward results for which he is unwilling to accept responsibility, then it is his duty to report the situation to the superintendent. In the absence of such report, he should be held responsible for anything going wrong in his division.

The general responsibility for all classes of work in his entire district which is thus recentralized upon each local division foreman provides a means for insuring in each locality the proper coordination of the work of the several staff-departments without assuming a superhuman personal watchfulness on the part of the general superintendent. The inevitable vagueness of the limits which separate the duties and responsibilities of staffdepartments in charge of different classes of operations in the same territory will lead, in spite of the best intentions, to conflicts of jurisdiction, to action by one department in ignorance of or in disregard of the conflicting purposes of another department; and, what is perhaps more serious, there are bound to be matters which are ignored by every department on the assumption that it is the business of some other department to look after them. The responsibility for finding these defects and bridging these lapses can be carried personally by the general superintendent for a small or concentrated territory, but for a widely scattered system of parks it must be delegated by him and squarely placed upon the shoulders of the division foremen.

In order to bring home these responsibilities definitely, and also as a desirable check upon the propriety of all expenditures, the charging up of the cost of any work done and supplies or materials furnished for a local division under the instruction or supervision of any staff-department should be approved both by the local division foreman and by the head of the staff-department in question. The charging up of such of the expenses of a staff-department as are not chargeable against any local division, but are properly overhead charges against the whole park system, should be approved by the head of the department. The charging up of expense for a local division not incurred under the supervision of any staff-department should be approved by the foremen of the division.

Nothing can be done without incurring cost, and the approval of cost entries involves assumption of responsibility for having the work done, and for its reasonable efficiency. The approval of both the local division foreman and a staff-department to each cost entry, or the refusal of either of them to give such approval, brings home the responsibility more definitely and more universally than anything else can.

I believe that a division foreman, instead of being kept in ignorance of the state of the appropriation for his work, instead of being required to execute blindly from week to week the detailed orders of the superintendent without knowing when his force may have to be cut down, should be required to know how the accounts of his division stand, and should be encouraged up to the limit of his capacity to plan his work ahead for himself with a view to accomplishing the utmost possible with the available funds and saving on all the unessentials for the sake of the more important things. To repose this confidence in the foremen and place this responsibility upon them not only tends to relieve the strain upon the superintendent but develops the self-respect and self-reliance of the foremen, increases their intelligent interest in their work and makes for efficiency all along the line.

Under a proper budget system of estimates and accounts, the superintendent, well in advance of the first of the year, would direct the preparation of detailed estimates of the cost of all the contemplated operations, both of maintenance and improvement, for each park. So far as practicable, these would be made by the responsible foremen in consultation with the several staff-departments. These estimates, together with those for

general and overhead expenses, and with proper allowances for contingencies, would be presented to the board, and would form the basis for a systematic, deliberate and well-balanced apportionment of funds for the entire year, subject only to such changes and transfers during the year as the board might, with equal deliberation, find expedient. The estimates, revised to conform to the decisions of the board, would show what each foreman expected to spend in each park on each class of work, and what he expected to accomplish by such expenditure. His time-sheets would be provided in advance with headings corresponding exactly with the subdivisions of his estimate, under which he would merely have to enter the time. The name of each subdivision of each account would be fixed and constant in form, its meaning would be clearly understood by the foremen who had made up the estimates, and the distribution of costs in the books would be practically automatic. Transfer charges and charges for supplies, materials, etc., would be allowed to stand against any subdivision of the account only with the knowledge of the foreman responsible for the work and for the estimate of its cost. He would be watchful of the correctness of the charges, and eager to accomplish within the appropriation what he had estimated that he could accomplish. Most of the charges, both for time and materials, being for work done under a staff-department, would be checked also by a department head.

Such methods are well known, and in those cases where they have been fairly tried have abundantly proved their value.—From Landscape Architecture.

(To be continued in October issue.)

#### SUMMER MEETING OF THE AMERICAN ROSE SOCIETY.

#### The Presentation of Medals to Messrs. Walsh and Cook.

The awarding of the Mis, Gertrude M. Hubbard Gold Medal for the best rose of American origin within five years was carried out at the Boston meeting of the American Rose Society. fine medal went for the rose "Excelsa" to Mr. M. H. Walsh, of Woods Hole, Mass. The rose "Radiance" was designated by the judges at the Hartford Rose Gardens and a silver medal was especially awarded for its excellence to Mr. John Cook, of Baltimore, The presentation teatures were as follows:

PRESIDENT PIERSON: Gentlemen, we have with us today two of the old men in the business. I am going to ask Mr. E. G. Hill, a gentleman that you all know, and you know is connected with the rose business, to present to our good old friend and good rosarian, Mr. Walsh, the Gertinde M. Hubbard Gold Medal, awarded to Mr. Walsh in recognition of raising the rose "Excelsa," I would like to introduce Mr. Hill.

#### Presentation of Hubbard Gold Medal to Mr. M. H. Walsh.

E. G. HILL, Richmond, Ind.: Mr. President and Gentlemen, I am sure that this is a pleasant duty. This splendid medal has been given to this society through the gracious kindness of woman who was interested in roses and rose growing. I think that we rosarians and others assembled here greatly appreciate the thoughtfulness of Mrs. Hubbard in thus providing this fine testimonial to be given to the one who should produce the finest and most useful rose in the last five years. Now, I understand that this modal has been given for the most splendid rose raised by Mr. Walsh, the name of which is "Excelsa." I want to say something about the "Excelsa" rose. When I went to London some years ago Mr. Walsh had sent there a specimen of the "Excelsa" and some of his other roses; and do you know, the British public at once pronounced this "Excelsa" rose as one of magnificent value. I saw plants here eight or nine feet high. clothed from top to bottom with beautifully colored flowers, and I was delighted and charmed. I have wondered a great many times whether we in America have ever fully appreciated the great work done by Mr. Walsh. He certainly has given us varieties which adorn, and will continue to adorn, great numbers of our gardens in this country; and I think it is very fitting and proper that this medal should go to him. Now, another thought. I hope some day that this medal will go to some man who will take up our native species, and from some of our best and hardiest hybrid teas produce roses which shall be free from what we call black spot and which will flourish in our American gardens. I believe that that can be accomplished. I believe some day it will be done. But let me tell you, some one will have to do it

who is disinterested, who is not always looking at the dollar at the end of the accomplishment; for up to this date there has been but very little money to any man who has raised a rose for the embellishment of our gardens. Is not that the fact, Mr. Walsh,

to a very great extent?

I would like to have this society take this matter into careful and serious consideration, and see if we could not give this medal in the future to some man or woman who will take our native species and give us hybrids from the teas, because I believe through that medium we are to secure roses that will grow and flourish in our climate. Climatic conditions to a great extent are against the beautiful roses that grow and thrive so finely in England, France and Ireland. We have got to have some material in our roses that will enable them to withstand the heat of our summer and to withstand the terrible disease of black stock as we call it. They will have to have different blood in them, I thoroughly believe. Now, Mr. Walsh, I have the very great pleasure of presenting to you this beautiful medal. (Presenting medal to Mr. Walsh).

PRESIDENT PIERSON: May I be the first to congratulate

you, Mr. Walsh?

#### Response by M. H. Walsh, Woods Hole, Mass.

Mr. President and Mr. Hall, I can assure you it gives me great pleasure today to receive this beautiful token of what I have accomplished. I consider it an honor. Of course, I have accomplished nothing but what other people could have done and probably done it better; but it has been an encouragement and an inducement to strive to do better and to take up other species, as Mr. Hill has suggested, to see if we could not improve the roses that we shall grow in this country to be true American roses such as will withstand our winters and summers. I shall continue in the future as I have in the past, if I am spared, to strive to improve the rose in American gardens. Mr. Hill and gentle-

men, I thank you for your kindness. (Applause.)
PRESIDENT PIERSON: Gentlemen, I want to read to you a letter that carries with it a tone of sadness and will be received by you with regret, and the Hubbard Medal has had a good deal to do with it. There were two roses, and there was a difference of opinion. The other rose was the "Radiance," a hybrid tea. In making their decision the committee went back to the introduction of the Crimson Rambler and what the Crimon Rambler has done for America, and the brilliant red flower masses that carried them beyond the hybrid tea for a man's garden. When your committee and your society went to Elizabeth Park this summer the beauty of that same rose "Radiance" as it stood in the garden was practically beyond description. I believe candidly that the "Radiance" is one of the most beautiful hybrid tea bedding roses; and the society then and there voted to Mr. John Cook, one of the finest old men of the business, a silver medal in recognition of his having raised the "Radiance." We asked Mr. Cook to be here. He wrote us this letter, which shows that the old gentleman would have been here if he could, viz.: "I would dearly love to be there, but I am eighty-seven years of age and subject to neuritis, and it is impossible for me to risk a journey, as every little bit of cold affects me. I attended the conventions from the beginning up to six years ago; but I have got to ask you to be kind enough to send it to me." message, and we have sent the medal to Mr. Cook. Those are his regrets to us.



fert Clause

# Work for the Month of October

By Henry Gibson.

THE FLOWER GARDEN.

As the notes are penned, the flower garden is in the height of its glory. The geraniums were never brighter, the begonias have become miniature forests, and the salinas are lines and circles of fire amid the sombre colors of approaching autumn. Tonight, Jack Frost may throw the first line of his advance guard across the land, and tomorrow there will be left only black ruin. When this occurs no time should be lost in cleaning off the old plants and bulbs planted for making a display next Spring. No manure is needed when preparing the beds for the bulbs, in fact it is detrimental to their future welfare. In heavy soils a layer of sand placed beneath the bulbs would be beneficial. If the soil is very dry when planting is done a good watering will greatly assist, the bulbs making roots and becoming established.

THE PERENNIAL BORDER,

The work of rearranging and dividing the occupants of the hardy border should be proceded with apace, so that the plants may re-establish themselves before severe weather arrives. When dividing the old plants it is a good plan to force them apart by placing two digging forks back to back and forming a sort of lever. Less damage is liable to be done to the roots by this method than when they are severed with a spade. While on this subject it might be well to mention a late flowering perennial that is not seen as much as it merits. This is Salina Azuna Grandiflora, a plant growing five or six feet tall and certainly of a pleasing shade of blue. When massed and properly staked up, as the writer saw it last fall, it certainly is worthy of a place in any collection.

Dahlias and Cannas should be lifted as soon as frost has blackened the foliage. The former keeps well when wrapped in old newspapers and placed in barrels and stored in a cool cellar. Canna roots should be lifted with a nice ball of soil adhering and stored on shelves in a frostproof shed or cellar. Under the bench of a carnation house is a good place if one is available where there are

no heating pipes and free from drip.

#### LAWNS.

There is a marked difference in the growth of the lawn at this writing, compared to what it has been all through the summer. Mowing need not be so frequent now, and ere the month is out should be discontinued. The weather, however, will be a deciding factor in this, should a warm spell occur the grass may take on a secondary growth, which if neglected will have to be paid for with interest next spring. Grass that has been allowed to stand over winter takes on a wire-like texture and is very difficult to cut. Moreover, it leaves a yellow unhealthy appearance behind it. Edges of bed and walks should be neatly trimmed before operations cease for the season. The present is a good time to relay turf. If the work is pushed ahead the edges of the sods will have a chance to knit together before the winter overtakes us.

#### THE VEGETABLE GARDEN.

Now that severe frost is inevitable it would be well to draw the soil well up round the stems of late cabbage and cauliflowers. This will help to keep them quite late. Cauliflowers should have the leaves drawn over the heads, to protect them from frost and rains.

#### CELERY.

Just how to keep celery through the winter in the best possible condition is a problem that nearly all gardeners have to contend with. One of the best methods that we have seen is to dig a trench about two feet deep, four feet wide and long enough to accommodate the quantity of celery to be lifted and stored. Over this trench is erected a span roof, of boards, with air vents here and there. The root covered with straw and then a foot or more of earth placed on top. Celery lifted and stored in a structure like this is kept well all winter.

#### LIFTING AND STORING ROOT CROPS.

Carrots, beets and parsnips, should be lifted during favorable weather and stored away for the winter. Do not let them lay round on the garden to the drying influence of sun and winds for any length of time. The quality is not improved by such treatment.

#### THE GREENHOUSES.

A close watch should be kept on the night temperature of the rose house. Though the nights are considerably cooler now, the sun during the day is still strong and the thermometer is bound to run up. Have the night temperature just a few degrees above what it should be in mid-winter. Too great a difference between night and day temperatures is not conducive to the welfare of the roses. Turn on the heat to offset the difference that the cooler nights make and gradually work the night temperature down to a normal one.

A weakened condition of carnation plants caused by too high a temperature is hard to overcome with the short dark days of winter drawing near. In spring it wouldn't matter so much, but at this time of the year keep them as cool as possible, a little too low is better than too high. As long as the mercury plays round the 50 mark at night one isn't far wrong. Cleaning off yellow leaves should be attended to as should disbudding and removing the small side shoots. Watering should be done carefully and only when really needed. Syringing should be done as early in the morning as possible to allow the

plants to get dry before night.

Feeding of chrysantheniums should be discontinued as soon as the buds show color. No good purpose is served by giving stimulants when this occurs. In fact we believe that when carried on too long feeding has a tendency to cause damping of the blooms at an early stage. Watering should be no slip shod operation in the Mum house at this time of the year. Let it be done as early as possible and only as required for as the plants finish less water is taken up. All superfluous water should be dried up before nightfall. A heavy humid atmosphere is not what is wanted as the moisture will condense on the petals of the expanding flowers and cause them to damp off. In the event of a spell of dull, wet, heavy weather, a little heat in the hot water pipes with a crack air on all night will help to carry away surplus moisture. On the other hand a light covering of whitewash on the glass will prevent scorching in case the sun should be unusually strong during the day.

Cinerasias are now in vigorous growth and should have every attention from this on. A low temperature and fullest light at this season is what cinerasias delight in. Particular attention should be given to ventilation on warm dull days to prevent soft flabby growth. Give them a shift into larger pots before they become pot bound. Regular fumigation is necessary to keep down queen fly.

Cyclamen, which have been grown in cold frames all summer, should now be brought indoors. A light, airy position near the glass, with a temperature around 56 degrees at night's, suit cyclamen admirably. Alternate applications at root and weak liquid manure water is very beneficial, especially if the pots are full of roots.

#### QUERIES and ANSWERS

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.
You are invited to contribute questions, and answer others.
Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.
We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.
Nothing will tend to better fellowship than helping each other.

Nothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

Has any reader of the Chronicle ever grown the Princess of Wales Violet or any other single flowering kind in a cold frame successfully? If so, would they please give their methods?—S L., Penn.

There is a wet place in one of our roads, which we cannot seem to repair. Can you suggest the cause and remedy?-H. C., Conn.

Undoubtedly there is a spring hole or something of the sort which is causing the trouble. The only and best way to remedy such a condition is to dig up the road where you notice the moisture; dig down until you are sure that you are at the seat of the trouble; then la ya tile drain to your catch basin line. If you do not have catch basins, run the tile out to where it will give you no trouble. In filling up the hole use plenty of rock and sand; the sand must be clean and free of all organic matter, for if it is not it will cause the road to settle.-W. W. Smith.

How is run-of-the-crusher, for road building?—H. C., Conn.

Run of the crusher is very good if it does not contain too much fine powder, especially for a middle or top layer of macadam roads. You have a very good binding material here, and it often is quite a saving, as it is much cheaper than No 1 or 2 stones, and answers the purpose just s well.—W. W. Smith.

#### ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N. J.

### APPLICATION FOR MEMBERSHIP

### National Association of Gardeners

I hereby apply for	Membership in your	Association: —
Name in full		
Occupation		
Address		
Date _		
Reference		

Forward Application to M. C. EBEL, Secretary, Madison. N. J., with dues, which are \$2.00 annually, including subscription to the Gardeners' Chronicle, the official organ of the Association.

### B. HAMMOND TRACY

Gladiolus Specialist

WENHAM, MASSACHUSETTS

### VAUGHAN'S SEED

. Is a control of the control of the

Our complete Autumn Catalogue is ready. Ask for it at Chicago or New York

43 Barclay St. New York

11 1 11 11 111 111

31-33 W. Randolph St. Chicago

disconsistential and the second of the secon

### HILL'S EVERGREENS

r i fras o erra - kildellindu cellellib sedemildet erlittiklik - fittikek i

Send for Price-list. Mention this magazine.

D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

#### ORNAMENTAL IRON

For Lawns and Gardens.

Chas. C. Force & Son.

LET US ESTIMATE ON YOUR WANTS. Madison Iron Works, Madison, N. J. בי ייידר בי במשוחות של בי מהגיות ווה בי ביות סיותר בי או גביי מיינות ווכב ובי מיידרי או היידרי או הווי וווי הווי

#### HARRY BALDWIN

Manufacturer of

GREEN-HOUSE SHADING LATH ROLLER BLINDS

18 Church St.

NEW ROCHELLE, N. Y.

#### Tree Owners and Tree Lovers

Will find much to interest and instruct in the

# NEW ILLUSTRATED MAGAZINE

Devoted to Arboriculture and Forestry.

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on leceipt of 2 cent stamp to cover postage. Published quarterly by

#### THE FROST & BARTLETT COMPANY

26 Cortlandt St.

(Suite 212)

**NEW YORK** 

# THE GUIDE TO NATURE

EDWARD F. BIGELOW, Managing Editor

A Profusely Illustrated Monthly Magazine Devoted to Commonplace Nature with Uncommon Interest.

> Subscription, \$1.00 per Year Single or Sample Copy, 10c.

Canadian Postage, 24c; Foreign Postage, 36c.

Published by The Agassiz Association, ARCADIA SOUND BEACH, CONN.

Make all Checks and Money Orders payable to The Agassiz Association.

#### NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists. John Young, secretary, 54 West 28th street, New York.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society. L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society.
H. A. Bunyard, secretary, 342 West 14th street, New York.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. Meets first Thursday every month, Hor-ticultural Hall, Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Meets third Tuesday every month, Horti-cultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Meets second and fourth Fridays every month, County Building, Hartford, Conn., 8

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls.

Meets at Poughkeepsie, N. Y., second Wednesday every month except May and

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. J. Meets first Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass. James Whiting, secretary, Amherst, Mass. Meets second Tuesday every month.

The Garden Club of Michigan. Mrs. Edward H. Parker, secretary, 139 Seyburn avenue, Detroit, Mich.

The corresponding secretary will notify members of date and place of meetings.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Paterson Park, Baltimore, Md.

Meets second and fourth Monday every month, Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Meets monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th street and Columbus avenue, New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. Meets first and third Saturday every month, October to April; first Saturday every month, May to September, Horticultural Hall.

Lenox Horticultural Society. G. H. Instone, secretary, Lenox, Mass. Meets first Saturday every month.

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary. Meets first Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Meets fourth Friday every month, Monmouth Boat Club, Red Bank, N. J.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette street.

Meets first Monday every month, Montreal Florists Exchange.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J. Meets at Madison, N. J., second Wednes-day every month, except July and August, 8 p. m.

Nassau County Horticultural Society.
Ernest Westlake, secretary, Glen Cove, N. Y.
Meets second Wednesday every month,
Pembroke Hall, Glen Cove, N. Y., 6 p. m.

New Bedford Horncultural Society. Jeremiah M. Taber, secretary. Meets first Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street Orange, N. J.

Meets first Monday every month, Jr. O. W. A. M. Hall, Orange, N. J., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London. Conn.

Meets second Thursday every month, 38 Main street, New London, Conn

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Meets second and fourth Tuesday every

month. New York Florist Club.

John Young, secretary, 54 W. 28th street, New York. Meets second Monday every month, Grand

Opera House. North Shore Horticultural Society. Jas. Slater, secretary, Manchester, Mass. Meets first and third Fridays every month.

North Shore Horticultural Society. North Shore Horticultural Society.

E. Bollinger, secretary, Lake Forest, Ill.

Meets first Friday every month, City Hall.

J. L. Mayberry, secretary, Washington.

D. C.

North Westchester County Horticultural and Agricultural Society. M. J. O'Brien, secretary, Mt. Kisco. N. Y. Meets third Thursday every month, except June, July and August, at 8 p. m.; December, January and February, 3 p. m., Odd Fellows Hall, Mt. Kisco.

Oyster Bay Horticultural Society. Fred Kirkham, secretary, Glen Head, N. Y. Meets fourth Friday every month, Board of Trade, Oyster Bay, N. Y., 8 p. m.

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 711 Westbank Bldg.

Meets first Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, 497 Bradford street, Pasadena, Cal.

Meets first and fourth Friday every month.

Paterson Floricultural Society. Sebastian Hubschmitt, secretary, 61 Seventh avenue, Paterson, N. J.

Meets first Tuesday every month, Romaine Building, 8 p. m.

Pennsylvania Horticultural Society.
David Rust, secretary, Broad and Locust
streets, Philadelphia, Pa.

Meets third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut street,
Paterson, N. J.
Meets first and last Friday every month,
Working Man's Institute, Madison avenue, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets first Tuesday every month, Horti-cultural Hall, Philadelphia, Pa., 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. Meets first Thursday every month, Fort Pitt Hotel, Pittsburgh, Pa.

Rhode Island Horticultural Society. A. C. Miller, secretary, 7 Irving avenue, Providence, R. L.

Meets fourth Monday every month, Providence Public Library, 8 p. m.

Shelter Island Horticultural and Agricultural Society. Fred Kirkham, secretary, Shelter Island,

N. Y. Meets first and third Thursdays every month.

Southampton Horticultural Society. William McLeod, secretary.

Meets first Thursday every month, Memorial Hall, Southampton, N. Y.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarytown, N. Y. Meets last Tuesday every month, except December, Corporation Building, Tarrytown, N. Y., 7:30 p. m. Annual meeting last Thursday in December.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y.

Meets first Wednesday every month, Parish House, Tuxedo Park.

Meets first Monday every month.

Westchester and Fairfield Horticultural Society.
J. B. McArdle, secretary, Greenwich, Conn.

Meets second Friday every month, Doran's Hall, Greenwich, Conn., 8 p. m.

Yonkers Horticultural Society.
Thos. Mahoney, secretary, Yonkers, N. Y.
Meets first Friday every month, Hollywood Inn, Yonkers, N. Y., 8 p. m.

#### **GARDENERS DIARY**

American Institute, New York, Dahlia show, September 22-24. Chrysanthemum show, November 4-6.

Elberon Horticultural Society. Chrysanthemum show, Asbury Park, N. J., November 3, 4, 5.

Horticultural Society of New York. nual fall show, American Museum of Natural History.

Lancaster County Florists' Club, Laneaster, Pa. Fall show, November 5-7.

Lenox Horticultural Society, Lenox, Mass. Fall Show, October 22 and 23.

Massachusetts Horticultural Society, Horticultural Hall, Boston, Mass. Fruit and vegetable show, October 3-4. Chrysanthemum show, November 5-8.

Monmouth County Horticultural Society. Fall Show, Red Bank, N. J., October 28

Morris County Gardeners' and Florists' Club. Fall show, Madison, N. J., October 28, 29,

Nassau County Horticultural Society, Glen Coye, N. Y. Dahlia show, October 6. Chrysanthemum show, October 29. 30.

New Jersey Floricultural Society, Orange, N. J. Dahlia and fruit show, October 5.

North Westchester Horticultural and gricultural Society. Annual show, Mt. Agricultural Society. Annual show Kisco, N. Y., October 30-November 1.

Oyster Bay Horticultural Society, Oyster Bay, N. Y. Autumn show, September 30-October 1. Chrysanthemum show, October

Tarrytown Horticultural Society. Annual Fall Show, Tarrytown, N. Y.

Tuxedo Horticultural Society. Fall show, Tuxedo Park, N. Y., October 30-November 1.

Westchester and Fairfield Horticultural Society. Fall show, New Rochelle, N. Y. November 4, 5, 6.

#### NEWPORT FLOWER SHOW.

The flower show of the Newport Garden Club and Newport Horticultural Society, which was held August 13, 14 and 15 at "Belcourt," was a decided social success. and goes on record as being the best conducted affair of its kind ever held in Newport.

"Belcourt" is the residence of Mrs. O. H. P. Belmont, and its spacious carriage house. court yards and the lawn with its shady nooks, proved to be an ideal place for the affair. The Garden Club, which is composed of the summer colony, financed the layout of the grounds and employed experts for the various branches of the work, with Arthur Herrington, of Madison, N. J., as manager, aided by a committee from the Horticultural Society.

premium list, gladoli were most extensively exhibited, B. Hammond Tracy making a grand exhibit, which was judged the best feature of the show and winning a silver cup from the Garden Club, also a silver medal from the Horticultural Society.

A silver cup for the second best exhibit was awarded to J. Lewis Childs for an unusually attractive display of gladioli.

The Stumpp & Walter Company cup, for a collection of vegetables, was won by J. B. Urquhart, gardener for R. L. Beeckman. Another cup, offered by R. & J. Farquhar & Co., for best display of hardy perennials, went to the Palisades Nurseries.

The best competed class was one for six vases of outdoor flowers tastefully arranged, there being nine competitors making an excellent showing. James Bond, gardener for Mrs. H. M. Brooks, was the first in this class, and Daniel Hay, gardener for Mrs. French Vanderbilt, was second.

In other important classes the following were the most successful exhibitors:

James Boyd, gardener for Vincent Astor, specimen greenhouse plants; William Mc-Gillivery, gardener for Stewart Duncan, hydrangeas; Edward Jenkins, Lenox, Mass. companula pyramidalis; Paul DeNave, Fall River, Mass., orchids; Fred E. Lewis, Ridgefield, Conn., grapes, peaches and nectarines; Arthur Griffin, Marion, Mass., gladioli; David Roy, Marion, Mass., fuchias; R. & J. Farquhai & Co., Chinese and Japanese lilies; Mrs. Jahn, New Bedford, Mass., dahlias; George L. Stillman, Westerly, R. I., dahlias; H. A. Dreer, water lilies; Wilson's Nurseries, coniferæ; F. R. Pierson, evergreens: J. Robertson, palms and dahlias; Gibson Bros., yellow flowers; Sisson & Thurston, dahlias; J. B. Urquhart, ferns, gardenias and roses; James Watt, tuberous begonias and glorianas; Oscar Schultz, bay trees; Daniel Hay, geraniums and gladioli; James Bond, groups of greenhouse plants: Hugh Williamson, miniature garden for which he received a silver medal.

The judges of the show were John T. Allen, A. S. Meikle and Bruce Butterton, of Newport; Robert Johnston, Southboro, Mass.; Maurice Fuld, New York, and Mr.

Cruikshank, Boston.

On the evening of the second day of the

Among the many things included in the | show Mrs. C. H. Hoffman, who is the leader of the Garden Club, provided a dinner at the Bellevue Hotel for the workers at the show, visitors and officers of the society. After an excellent dinner had been fully enjoyed, President MacKay called on the following gentlemen for remarks: Col. A. K. McMahon, A. Herrington, John Hay, Alexander MacLellan, Maurice Fuld, John B. Sullivan and B. Hammond Tracy. All speakers had praise for the show and its management, and predicted a still more successful one of its kind for next year. -Horticulture.

#### TUXEDO PARK (N. Y.) SHOOTING MATCH.

The outcome of a challenge from the assistant gardeners in Tuxedo Park, N. Y., to shoot a team of head gardeners was settled on August 20 at Kineraig when teams of six a side met to shoot for the honors. The weather being in its best behavior a very pleasant afternoon was spent. After the shooting the party became the guests of D. S. Millar, when an enjoyable two hours was spent.

When all was said and done the assistants took their beating in good part, and challenged the gardeners to a bowling match, which is to be settled at some future date. The score of the shooting was as follows, over a range of 50 feet, with

the possible score 750:

#### Head Gardeners.

Charles Costecki	655
Simon Hilmers	599
David S. Millar .	564
Charles Davidson	ããã
Thomas Wilson	307
Charles Sheppard	
1 1	
Total	2.823
Assistant Gardeners.	
Harry Watson .	351
John Kelly	519
James Davidson	445
Alexander Roy	437
Henry Gibson	435
Thomas Eastham	386
	*
Total	2,776

The head gardeners won by 47 points.



CONTESTANTS IN THE TUXEDO PARK, N. V. SHOOTING MATCH BLAWILL HEAD AND ASSISTANT GARDENERS.

#### NASSAII SOCIETY.

The regular monthly meeting of the Nassau County Horticultural Society was held at Pembroke Hall, Glen Cove, September 9, President Henry Gaut in the chair. Mr. Angus McGregor was elected to active membership.

for the monthly exhibits were Andres Messis, J. W. Everitt, Jas. Duthie and Angus McGregor. Awards as follows: 1 musk melon, 1st, Geo. Ashworth; 12 spikes mixed gladiolus, 1st, Alfred Walker; 12 mixed asters, 1st, Harry Jones. Harry Jones also received a cultural certificate for a vase of gladiolus, America.

The schedule for the Chrysanthemum Show on the 29th and 30th of October was

read and adopted as read.

Mr. J. W. Everitt will be manager of the Dahlia Show to be held at the Pembroke Hall Tuesday, October 6. Show open to public at 3:30 p, m,

President Henry Gaut made a trip to the New York State Fair at Syracuse, and was a very successful exhibitor there.

Exhibits for next meeting, October 14 tfruit), 3 bunches outdoor grapes, 3 distinct varieties; 12 apples in two varieties; 6 pears, HARRY JONES. 1 variety.

Corresponding Secretary.

#### CONNECTICUT HORTICULTURAL SOCIETY.

The society held its first meeting succeed ing the usual two months' vacation at the County Building, Hartford, August 28. As Mr. Huss was out of town attending the Park Superintendents' Convention, Mr. Hunt acted as chairman. The matter of appointing a committee of three to work in conjunction with the gardeners' co-operative movement was postponed until the next meeting. An article appearing in the June number of the GAPDENERS' CHRONICLE of America, entitled "The Gardeners' Co-operative Movement," by M. C. Ebel, was read to the members and received much applause. Some of our members showed their unusual ability in the art of producing asters and gladioluses of rare beauty and The spikes of the gladioluses were four feet long, having two dozen blooms to a spike of marvelous tints. The Chair named A. Righenzi, G. Boss and H. L. Ritson judges, and they awarded the gladioluses and asters, the exhibit of Mr. William H. MacKenzie, head gardener at the Sessions Greenhouses, Bristol, a first-class certificate. The three varieties of asters, great big beauties, the exhibit of Mr. Alfred Cebelius, head gardener for the Rev. M. W. Jacobus. also received a first-class certificate. exhibit of Mr. G. Ogren, asters and Shirley poppies, received a certificate of merit. Mr. Francis Roulier gave a most interesting account of his trip to Switzerland, giving his experiences there after war was declared. He had the time of his life trying to get home, but by his persistent efforts finally sailed from Genoa, Italy, arriving in America two weeks later. The meeting was well ALFRED DIXON. attended.

Secretary. Wethersfield, Conn., August 29, 1914.

#### THE HORTICULTURAL SOCIETY OF NEW YORK DAHLIA EXHIBITION.

The Horticultural Society of New York in co-operation with the New York Botanical Garden, will hold a dahlia exhibition on Saturday and Sunday, September 26 and 27, in the Museum building, New York Bo-tanical Garden, Bronx Park, New York City. Schedules of classes and premiums are now ready and will be sent on application to the culture.

COUNTY HORTICULTURAL secretary, George V. Nash, New York Bo-SOCIETY. tanical Garden, Bronx Park, New York City.

A symposium on the dahlia will be held on Saturday. September 26, at 2:30 p. m., in the lecture half. Museum building. Dr. H. H. Rusby, who has traveled extensively in the country where the dahlia is native, will make a short address on the home and surroundings of the dahlia. This will be followed by a discussion of the methods of present day cultivation of this flower, led by specialists in this line.

All, both amateur and professional, are invited to contribute exhibits and to take part in the discussion. Let us make this a notable gathering of dahlia enthusiasts. Certainly the dablia is a very popular flower and has hosts of admirers who can do justice to the presentation of their favorite.

GEORGE V. NASH, Secretary.

#### OYSTER BAY HORTICULTURAL SOCIETY.

The regular meeting of the Oyster Bay Horticultural Society was held in the Fireman's Hall August 26, with President John T. Ingram in the chair.

The special committee reported progress on the matter of destroying the caterpillar, and Mr. Nisley, of Farmingdale, gave a very interesting talk on caterpillars and their destruction.

Among the other speakers were Joseph Robinson, James Duthie, Alfred La Hodney and Arthur Patten. A very hearty vote of thanks of the society was extended to Mr. Nisley for his very instructive talk.

Mr. A. Yancechi was elected to membership, and there was one nomination for membership. The judges for the exhibits were as follows: Alfred La Hodney, Duncan Beaton and Frank Humphreys, and their decision as follows:

For society's prizes: James Duckham, 1st 6 gladoli; Frank Petroccia, 1st 6 apples: Frank Petroccia, 1st, 3 celery

Messrs. Garvin, Walker and Yancechi each received honorable mention for exhibits.

The exhibits for the September meeting will be 12 English cactus dahlia distinct, 6 onions, best 3 dishes of fruit, 3 of each.

F. KIRKHAM, Secretary.

#### NORTH SHORE HORTICULTURAL SOCIETY.

The annual exhibition of the North Shore (Massachusetts) Horticultural Society, postponed earlier in the month because of unfavorable weather, opened Thursday, August 27. A large tent had been erected on the grounds of Mrs. Robert C. Winthrop, offered by her for the purpose, and an interested public thronged it during the afternoon as well as in the evening, when a band concert was given. The pretty effects and general arrangement which charmingly displayed the products of North Shore gardens and hothouses, fields and meadows, were mainly due to John Chapman, the president, and other offcers of the society, and the advisory executive committee, which consisted of Mrs. W. Scott Fitz, Mrs. George E. Cabot and Miss Mary Bartlett.

Considering the backwardness of the season and the close competition resulting, the ceneral show was most creditable and beautiful. The riot of color and the exquisite and artistic arrangement of all departments created most favorable comment from the representative people in attendance. most gratified people present were the gardeners, who have labored so unceasingly to get results pleasing to their employers, who expend so much money each year on this department of their great estates. -Horti-

#### MONMOUTH COUNTY HORTICULTURAL SOCIETY.

The seventeenth annual exhibition of the Monmouth County Horticultural Society will be held at St. James' Hall, Red Bank, N. J., on Wednesday and Thursday, October 28 and 29. Prizes will be offered for exhibits of chrysanthemums, foliage plants, roses, cut flowers, carnations, fruits and vegetables. The exhibition committee is composed of George H. Hale, Philip Bonner, Wellington W. Kennedy, Harry A. Kettel, Percy A. Hicks, William Dowlen and Harry Collis. The judges will be William Turner of Mendham, formerly of Oceanic; James Kennedy of Deal, Adam Patterson of Saugatuck, Conn.; James Stuart of Mamaroneck, N. Y.; Peter Duff of Orange, and Mr. Burns of New Canaan, Conn. William Metzdorff is president of the society, Philip Bonner is vice-president. Harry A. Kettel secretary, Percy A. Hicks financial secretary, and George H. Hale treasurer.

#### NEW LONDON HORTICULTURAL SOCIETY

"A Busy Life in the Growing of Small Fruits" was the topic of an address by President Fuller, of the New London Horticultural Society, September 10.

The meeting was well attended. The president told his boyhood experiences among strawberries of fifty years ago. Also upon raspberries, currants and other small fruit, down to the present day varieties and culture, etc. An informal discussion followed the remarks of the speaker.

F. L. Childs, Flowerfield, L. I., sent a fine box of his "Snow King Gladioli" for exhibition. Renlies, the florist, staged several fine vases of indoor roses. Smith, the Mercer street florist, had a fine display of Several varieties of the table dahlias, helianthums, etc., were shown by private growers. It is hoped the society will be able to get the secretary, Mr. Ebel, of the N. A. G., from Madison, to speak at the October meeting on "The National Co-operative Movement," of interest to gardeners especially.

STANLEY JORDAN. specially.

Harkness Estate, Waterford, Conn.



#### of growing Shade Trees and Shrubs

produces specimens that will complete produces specimens that will complete a landscape planting in a few shormonths rather than in years. Cultivation and re-cultivation gives hardines and vigor to the trees grown the Andorra Way. few shore Cultiva-

#### VISIT ANDORRA IN AUTUMN

when the foliage is taking on gorgeous when the foliage is taking on gorgeous tints, and the effect you desire around your own place is shown in Nature's colors. Come by motor, train or trolley.

If you require immediate planting suggestions, write us we are here to serve in the Andorra Way. Our bookserve in let free.



#### MASSACHUSETTS HORTICULTURAL SOCIETY

The exhibition of children's garden products at Horticultural Hall on September 5 and 6 brought out an immense entry. Nothmg like it had ever been seen in Boston before. The flowers and vegetables were not so numerous, but vastly better or quality and more artistically arranged than a year ago. It exhibitors grow as much another season it will take the resources of Horticultural Hall to accommodate them. The attendance of both adults and chil dien was very large all the time the exhibition was open.

The dahlta and truit exhibition held at Horticultural Hall on September 12 and 13 was one of the best ever held. In the truit section the peaches, pears, apples, plums and grapes were unusually fine. Dahlias were of better quality than in previous years. Long-stemmed flowers were shown by George B. Gill, of Melford, were superb. the flowers being of immense size. Some of the leading exhibitors and prize winners were Geo, H. Walker, E. W. Ela, W. V. Hathaway, F. L. Pinkham, Miss Fanny Foster, W. Whitman (M. Sullivan, gardener). Parker H. Mansfield & Son, W. H. Symonds, Mrs. Q. M. Tayle, E. F. Duryea, W. C Winter, George L. Stillman, Mrs. F. Dodge, Mrs. E. M. Gill and George B. Gill.

Fottler, Fiske, Rawson Company had a fine collection of gladioli and dahlias. Eastern Norseries made an extensive show of hardy herbaceous perennials. William Nicholson received a certificate of merit for varieties of Buddkia variables. The fol-lowing varieties of dahlias were the best noted in their respective classes:

Fascination, Conquest, Country Girl, William Marshall, Mrs. F. Jeffries, Mrs. Douglas Fleming, Dorothy Harves, Olympia, Marathon, Suzanne Cayeux, Mrs. H. Randle, F. W. Bellowes, Golden Crown, Crystal and Empress.

Show and Fancy Duchess of Albany, Christy, Estelle, Eric Fisher, Dreer's White, General Miles, Flore de Paris, Le Colosse,

Alice, Emily, H. W. Rawson, Captain Black., Peony-flowered Geisha, Governor General, Pocahontas, King Philip, Dr. Perry, J. B. Walker, Bertha von Suttner, Queen Esther, Osceola, Milady, Miantimoni, Excelsior,

Decorative Le Grand Maniton, Santa Cruz, Dorothy Flint, Yellow Colosse, Souv. de Gustave Douzon, D. M. Moore, Royal Purple, Jeanne Charmet, Delice, Mrs. Alice Longworth.

Single Newport Pink, Newport Cheer, Newport, Dandy, Beach Bluff, White Cloud, Dauntless, Coquette, Gladys, Newport Angel, Odin Woburn.

Pompon—Alwine, Bobby, Belle of Spring-tield, Red Indian, Apple Blossom, Rachel, Ariel, Lady Blanche.

The annual fruit and vegetable show of the Massachusetts Horticultural Society will be held on October 3 and 4. The anmual chrysanthemum exhibition comes on November 5, 6, 7 and 8.

#### LAKE GENEVA GARDENERS' AND FOREMEN'S ASSOCIATION.

The Lake Geneva Gardeners' and Foremen's Association's gladiolus show was a great success from the point of view of both quality and variety. Coming so quickly after the midsummer sweet pea exhibition the number of exhibitors was not large, but a sufficient representation was staged to fill the large hall to advantage. The competition in the classes of five spikes each and ten varieties of three spikes each, the latter for the Stumpp & Walter cup, was very keen. The entries for the collection of best gladioli, one spike of each, for the Kunderd medals, brought out a fine lot of seedlings and standard varieties. Joseph Krupa, gardener for N. W. Harris, staging 132 varieties. Some beautiful varieties of Primulinus hybrids and ruffled typts were shown by the several exhibitors, the former, we believe, having a great future. Conspicuous varieties shown included the following:

Kunderdi Glory, Mrs. F. Pendleton, Chi-

cago White, Ida Van, Pride of Goshen, White Glory, Governor Hauley, Mrs. A. E. Kunderd, Lily Blotch, Little Fawn, Peace, War, Niagara, Panama, Rochester White, Attraction, Corsaire and Mrs. F. King.

In the competition for the best collection of gladioli, J. Krupa was successful in taking first honors. In the Stumpp & Walter cup competition, 10 varieties, 3 spikes of each, first prize was awarded to Mrs. F. T. A. Junkin, N. W. Harris was second with a very creditable display.

Other awards for excellent exhibits were

as follows:

J. J. Mitchell (E. Johnson, gardener); E. F. Swift (R. Sampson, gardener); Mrs. C. Seipp (E. Johnson, gardener). Special awards were made to J. J. Mitchell, N. W. Harris, T. J. Letens and J. H. Moore for displays other than gladioli.

WM. H. GRIFFITH, Secretary.

#### UNCLE IKE ON THE INITIATIVE.

The only way beneath the sun To get a piece o' labor done, To build a fortune or a fence, Or tear 'em down, is to commence.

Nigh all the jobs that don't get done Are those that never are begun; Comparatively mighty few We see begun and not put through.

Most people whom we say have failed Are like a ship that's never sailed; They claim that all their plans went wrong

They never got that far along.

For nothing can go wrong or right, Go in too loose, go in too tight, Come out too big, come out too small, That doesn't come or go at all.

And therefore, I may farther say. You'll always find the likeliest way To get your rightful recompense For bein' done, is to commence, —John Brown Jewett.

#### ADVANTAGES OF FALL PLANTING.

The proper time to plant any kind of tree is when it can be done well, either in spring or in fall. Because of its special convenience, fall transplanting of hardy vigorous, well-rooted trees that have been grown and wintered in the open, without protection, is becoming more and more extensively practised in most localities, says a well known nursery firm.

Fall planting should be regulated by conditions rather than by date; as long as the ground is damp and free

from frost transplanting is safe.

The latter part of August and the whole of September are the proper fall season for transplanting most kinds of evergreens.

October and November are desirable months for transplanting deciduous trees. The general rule for hardwoods is to transplant as soon as the leaves begin to color. By removing the leaves, the work may be done somewhat earlier if necessary.

Land which is better adapted to the growing of trees than to any other use is often too wet to be planted easily in spring, but may be satisfactorily planted in fall. In dry, wind-swept places fall planting is not desirable. In some regions there is more moisture in fall than in the months immediately following the spring planting season; this is a great advantage. Where it is not so, unless the ground is naturally moist, the importance of

available water or mulch must be remembered.

The technical basis of fall planting rests on a physiological fact, demonstrated by a long series of experiments which proved that root growth still continues after the leaves of deciduous trees have stopped growing and the evergreens have put on their protective winter covering; this root growth continues till after the ground freezes. It is easily seen that the roots of trees set out in autumn get well established, if the planting is successful. They thus get an early start in spring, and much time is saved. It has been noticed frequently that trees successfully transplanted in fall make a better growth during the following summer than those equally well set out in the intervening spring.

Vegetation is of course more active in fall than in spring, and there is consequently more evaporation in fall. Fall planting, therefore, is most successful only when plenty of moisture is assured, or some form of temporary protection from drying winds and sun. It can be well done where the ground is naturally moist (or when damp weather prevails) or where the trees can be watered. The ground near the plants should be covered with very strawy manure or leaves to prevent the "heaving" caused by alternate freezing and thawing. This heaving is especially likely with very small plants in wet, heavy soils.

Underplanting of an existing wood and planting in brushy places are both generally successful, owing to the protection afforded by the larger growth.

### AGRICULTURAL EXPERIMENT STATIONS

and the control of th

are favoring 40% Nicotine solutions in their recommendations for fumigating and spraying. To meet the demand this has created we now offer

# "40% NICOTINE"

\$13.00 Gallon — \$3.75 Quart — \$2.00 Pint Compare these prices with what you now pay.

#### NIKOTIANA

A 12° Nicotine solution properly diluted for vaporizing and fumigating. \$4.50 Gallon—\$1.50 Quart.



The Recognized Standard Insecticide for green, black, white fly, red spider, thrips, mealy bug and soft scale. Can be used on tender plants.

\$2.50 Gallon—\$1.00 Quart

#### **FUNGINE**

For mildew, rust and other blights. It is perfectly safe to apply to fruits and vegetables, as it is non-poisonous. An infallible remedy for rose mildew, carnation and chrysanthemum rust.

\$2.00 Gallon—75c. Quart

#### **VERMINE**

For eel, cut and wire worms working in the soil. It can be applied to all vegetation. \$3.00 Gal.—\$1.00 Qt.

#### **SCALINE**

For San Jose, Oyster Shell and all scale on trees and hardy stock. An effective remedy for red spider on evergreens. \$1.50 Gallon—75c. Quart

If you cannot obtain our products from your local dealer, send us your order with remittance and we will ship immediately through our nearest agent

# Aphine Manufacturing Co. Manufacturers of Agricultural Chemicals

Manufacturers of Agricultural Chemicals
MADISON, N. J.

Ta alamununan koluntarkaten kolokialaren ilililikia kiribitainin kalendaria kiribitainin kalendaria kalendaria

# **Boddington's**Quality Bulbs

Our French and Holland bulbs are now in the house,—and their quality was never better.

**OUR** 

### FALL GARDEN GUIDE

IS NOW BEING DISTRIBUTED

If you did not get your copy, drop us a postal card. When in the city, call on us.

# **Arthur T. Boddington**

West 14th Street New York
Telephone 2606 Chelsea

CONTRACTOR OF THE STATE OF A STATE WITH THE REST. OF STATE OF THE STATE OF THE STATE AS A STATE OF THE STATE

Specimen Evergreens in variety, suitable for moving in the months of September and October. Descriptions of same sent on application.



INTERNATIONAL NURSERIES, Inc.

1905 West Farms Road, New York City
Phone 4028 Tremont

# Now Is The Time To Plant Hicks' Guaranteed Shade Trees

THE days are get ting damp and cool. It is much better for the trees to be handled now than in the hot, dry weather—and if planted now, they will be well established by next spring.

We have a wonderfully fine lot of Norway Maples, twelve years old 0 to 8 inches in diameter, with 18 feet spread.

Their beautiful, dense green foliage makes them about the best shade tree you can plant. They are good drought resisters.



And remember: if any of our stock dies, we will replace it without cost to you

This unusual guarantee we have long been making because we know so well the superior quality of our stock.

We have shipped trees 1,000 miles, and they have all lived.

Send for our new bargain list. It will give you an opportunity to select now, right at the best time of the year, the best nursery stock at two-thirds to one-half its real value.



Ficks rees
Isaac Hicks & Son
Westburu . Long Island

When It Comes to Greenhouses Come to Hitchings
SEND TOR CATALOGUE

Hitchings and Company

NEW YORK 1170 Broadway

BOSTON Fe Federal St. PHILADELPHIA



#### GIANT DARWIN TULIPS THE TULIP FOR EVERY-BODY'S GARDEN

Whether you plan to have Tulips in flower during May for cutting; grouped in the herbaceous or shrubbery border or in formal beds, no Tulips will provide such a wonderful display or give you any better color scheme.

Our stock is complete with the finest varieties in commerce.

ARIADNE. Bright resv eignson, shaded searlet, with blue base haige down great sub-tance, for outdoor planting or terrical Height, 28 inches. Doz., 75c., 100, 85; 1,000, 848.

ASCANIA. Brillett leac manye, quite a self-color, edged silvery like; base white; a spleadid variety for any position in the zero mileight, 25 inches. Poz., \$1.50; 100, \$10.

BARONNE DE LA TONNAYE. "A long and beautiful flower, clear carmine-rose at the midule, fening off to soft pink at the edges, lass white, tinged blue. Excellent for early March forcing and just as fine for outdoor beds, when it keeps up a splendid show for a long time. Height, 26 miches. Doz., 40c.; 160, 83; 1,000, 827.

ELECTRA .- Rosy lilac, broadly

ELECTRA.—Rosy libre, broadly margined gray/sh white; medium sized flower, which contrasts well with dark r-shad d. Tulips. Height, 26 inches. Doz., 75c.; 100, 85.50; 1.000, 852.

ERGUSTE. Soft violet, with a slight slivery flush; flower medium size. One of the bast barwins for forcing, keeping its refined color splendidly. Height, 26 inches. Doz., 80c.; 100, 86; 1,000, 857.

EUROPE.-Deep, fiery crimson. white base. There is no more beautiful sight than a bed of th variety. Stems are of medium length; the flowers large and erect, with white base contrasting well whom the flower is fully open. Height, 22 luches. Doz., 60c.; 10c. \$4, 1,000, 838.

Goc.; 160, \$4, 1,000, 838.

FARNCOMBE SANDERS. Brilliant dark rosy red flow is barze-borne on long, stiff stems, base shaded white. A giant among large-flowered varieties. Conceded to be the best in its color. Height, 24 inches. Poz., 75c.; 100, 85; 1,000, \$48.

FLAMINGO.—An even tone of pure shell pink, flower pelated and of refined form. Of unsurpassed beauty for border planting. Height, 28 inches. Poz., \$1.25; 100, 89; 1,000, \$85.

GLOW.—Bright vermilion-scarlet, white base, with blue markings; good sized flowers of distinct shape. An evcellent scarlet for bodd in and tors in Height, 20 inches. Poz., 50c.; 100, 8375; 1,000, 835.

GRAND MAITRE. A distinct dark violet, white base with blush sheen; large flower of refined term, borne on a strong, stiff stem. A splendid Parwin, for a trust og. Height, 24 inches. Poz., 60c.; 50c. \$44; 1,000, \$38.

\$\frac{\text{GRETCHEN}}{\text{GRETCHEN}}\$ (Margaret).—Pale rose ground, faintly flushed white, center white, marked blue—a very delicate color; flower globular in shape, borne on a strong stem. Splendid for forcing Height, 22 lnchs, Doz., 30c.; 100, 82; 1,000, 81s

HITCHCOCK.—Rich, glowing vertoflor, will blue lass and it tractive border variety. Height, 26 inches, Doz., 60c.; 100, 84;

 $\pmb{\text{ISIS.--}}$  Fiery crimson-scarlet, with blue base; very large flower of striking beauty. The rest bulbant of is color. Height, 26 incles  $\pmb{\text{Doz}}$  ,  $\pmb{\text{Soc}}$  ; 100,  $\pmb{\text{SG}}$  , 1,000,  $\pmb{\text{SSG}}$ 

JULES VINOT (Princes Elizabeth). Beautiful clear rescapink, with a white base. A magn fitent, large sized Darwin of stury has a Height, 26 inches, Doz., \$1; 100, \$7; 1,000, \$65.

KING HAROLD. -Intense ruby-crimsen, conter rich black; very tall and of fine form, new and stately variety; very distinct. Height, 24 inches. Doz., 50c.; 100, \$3.50; 1,000, \$32.

LANTERN.—Pale silvery lilac, passing into white, inside clear Illac, with white base; medium-sized flower of beautiful form, a light violet counterpart to Gretchen. Height, 20 inches. Doz., 40c.; 160, \$3;

LA TRISTESSE. Do p. slary 11 n. with white base, very distinct in observed dimensized nower. Height, 26 nebes. Doz., 80c., 100, \$6; 1 000, 855

1 000 855

LA TULIPE NOIRE (The Black Tulip), -Deep maroon-black, having 1 ve vet, sheen in the sunlight; large flower of fine form. Height, 25 (14): 500, 82.25; 100, 815.

MADAME KRELAGE. Bright blac-rose, margined pale silvery rose; flower long and of executent form, I've-flent for borders or pets. Penght, 25 melos. Doz., 60c; 100, 84; 1,000, 80s.

MASSACHUSETTS. -Beautiful pink, with white center; large flowers of beautiful color and form. Height, 24 inches. Doz., 60c; 100, 84; 1000, 83.

MAY QUEEN, -Pale life-rose, center delicately marked blue; very birz, large flower. Excellent to Forders or among skrubs. He ght. 26 to his birz, 5s :: 100, 83,50, 1,000, 832. MEDUSA. — Orange - searlet,

MEDUSA. — Orange - searlet, flushed salmon, with blue base, the color is of great brilliance in the open flower. Height, 24 h. h. b. Doz., 60c.; 100, \$4.0.

1,000, \$40.

MRS, POTTER PALMER. —
Bright purplish violet, base white: a large flower; very attractive for border planting. Height, 28 inches, Doz., 60c.; 100, 84.50; 1,000, 840.

DOO 84.50; 1.000, 840.

NAUTICAS — Dark rise, center clear violet, shaded bronze; large flower. Excellent for outdoors and early or late forcing. Height, 30 inches. Doz., 50c.; 100, 83.50; 1,000, \$32.

NORA WARE. — Silver-blac, quite a uniform color when grown inside in pots; recommended for forcing. Foz., 60c.; 100, 835.

grown inside in pots; recommendoff of forcing. Foz., 60c.; 100,
\$4: 1.000, \$3S.

OUIDA. -Bright crimson-searlet, center-blue. A variety that
is not easily beaten for its keeping qualities. Height, 26 inches.
Doz., 50c.; 1.00, 87: 50; 1.000, 832.

PAINTED LADY. — Creamwhite, with a faint tinge of
heliotrope when open; good-sized
flower resembling somewhat a

nenotrope when open; good-sized dower resembling somewhat a w.f.t.l.l.. One of the test varieties for outside or forcing, ber. for; 10, 81, 1,000, 83 PALISSA.—Rich, bright violet,

PALISSA.—Rich, bright violet, base white: a very handsome variety that should be in every collection. Height, 24 inches, Doz., 60c.; 100, \$4.50; 1,000, \$42. grand flower of dark, polished unhogany color, with a purple base, one of the best of the less expensive series in this color Height, 21 inches | Doz., 60c.; 10c, \$4; DOZ., 60c.; 10c, \$4;

PRIDE OF HAARLEM.—Magnificently formed flower of immense size, brilliant, deep salmon rose, shaded searlet, light blue base. This variety, perhaps the most widely known for its stately habit and glorious color, is usun, assider for border or early forcing. Height, 20 inches, Doz., 50c.; 100, \$3.50; 1,000, \$32.

PROF. RAUWENHOFF. Doct docty tose with salmon-glow uside: enormous flower of great substance on a strong stem. Superb for borders or among shrudderly and one of the finest forcing varieties. Height 18 inches Doz. 75c: 10c, 85-50; 1,000-852

PSYCHE.—Olderose, edged white, inside lighter rose, base blue. A very grand variety for February forcing. Height, 26 inches. Doz., 75c: 10c, 86-1,000-855.

REMEMBRANCE Pile Place general top of the flower slvery quite distinct; large flower. Height, 25 inches. Doz., \$2; 10c, \$15.

REV. H. EWBANK. Vivel he on booklass, downs broad Evelent to be to any loss of the stem its color. Height 22 inches. Doz., 75c: 106, \$5, 1000-848. PRIDE OF HAARLEM .- Magnificently formed flower of immense

SUZON.—Center of petals buff-rose, shading to blush at the margin, ent) waste base, delicately carked blue. A very such admired variety in the fields; of strong, stately habit. Height, 25 inches. Doz., 80c.; 10c., 80c.; 10c.; 10c., 80c.; 10c., 80c.; 10c., 80c.; 10c.; 10c., 80c.; 10c.; 10c., 80c.; 10c.; 10c.; 10c., 80c.; 10c.; 10

THE SULTAN, -Rich mar concluded with blue base; small flower of time form; a good Tulip among the darker sorts to plant with yellow Cottage Tulips. Excellent for forcing. Height, 25 inches. Doz., 40c.; 1c., 82 75; 1 cote, 824

WHITE QUEEN (La Candeur).—Almost a pure white when mature; faintly blush-rose when first open. Excellent for borders and pots. Height, %4 inches. Doz., 60c.; 100, \$4; 1,000, \$2\$.
WILLIAM COPELAND.—Uniform Illac-rose when grown in pots. A most captivating color when grown inside. One of the best as well as assest torcers. Height, 21 inches. Doz., 75c.; 100, \$5,50; 1,000, \$32.

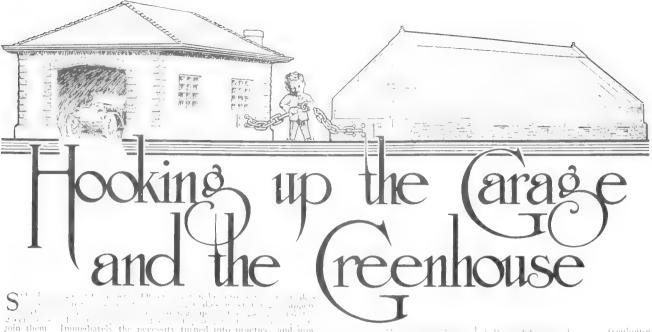
Our Catalog containing list of Best Novelties as well as standard varieties of Bulbs for Fall Planting free on request.





30-32 BARCLAY ST. **NEW YORK** 

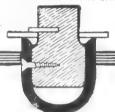




poin them. Immediately the necessity turned into practice, and now wherever feasible, they are being combined. It makes a practical,

workroom entirely from the gatage proper, and having a distinct

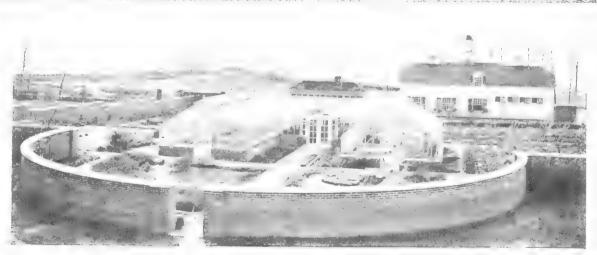
and garag, beating both at but little increase in fuel cost.
In the last year or so we have built several greenhouses in connec-



# U-BAR GREENHOUSES

PIERSON U-BAR CO

ONE MADISON AVE NEW YORK CANADIAN OFFICE TO PHILLIPS PLACE MONTREAL



# Following the English Idea

Willie the interest and the Walled-In-Gardens of England, with their greenhouse accompaniment—to use a bar through the interest been more extensive adopted over here.

photograph does it scant justice. The greenhouse, however, shows up to advantage. To call your attention to the greenhouse, is, after all, the real purpose of this ad.

to the right for a concern to so you it was the ready to talk over about building one? If so, say when and where and we'll be there.

#### SALES OFFICES.

New York 42nd St. Bldg. Boston, Tremont Bldg. Philade'phia, Franklin Bank Bldg.

Chicago, Rook ry Bldg Rochester, Granite Bldg. Cleveland, Swetland Bldg. Toronto-12 Queen Street, East.

Jord & Burnham 6.

FACTORIES

Irvington, N. Y

# Extra Quality Genuine Varieties Fair Prices

HE stupendous tragedy of Europe has demoralized the bulb-business in Holland, and those looking for really high grade bulbs, should exercise great caution this season, when purchasing their bulbs.

While bulbs are usually assorted and shipped from Holland during August. September, the conditions then prevailing were so turbulent that we decided to have our growers select and pack OUR bulbs after the country had once more settled down to regular routine, which has been possible during the past few weeks.

We therefore only received our Holland bulbs on October 14th last and they prove to be of our usual high quality. Of course, most of these bulbs were imported by us ON OR-DERS for our exclusive trade, but we have a few thousand of some varieties which we now offer to gardeners or their principals (we do not sell to the wholesale trade).

To induce those interested to try some of our high grade bulbs and compare them at flowering time with bulbs obtained elsewhere, we offer this fine stock at a great reduction from our regular prices for quick orders. Even if you have already bought all you need, it will pay you to try just a few of ours.

All our bulbs are guaranteed true to name

#### Roman Hyacinths

Size 15 centimeters, per 100 8175,

DUTCH HYACINTHS, exhibition's ze, 20 to 22 continuers in linest separate varieties, very heavy bulbs, 100, 812 00. LaGrandesse, Lady Berby, Gerfrude, Queen of the Blues, King of the Blues, etc., ROMAN HYACINTHS, "SCHIEFFERS" Numbed pink, the only true Prench Pink B. cin worth growing and arkably valiethe for foreing while true, sold strong bulbs, per 100, 86-25, FREESIA, true Punity, Morster lod's, per 100, 82-25.

#### Narcissus

DOUBLE VON ZION, extra double-mosed toproofs, per 100	. 82.85
EMPEROR, extra double nosed toproots, per 100	2 75
EMPRESS, extra double rosed toproofs, per 100	2.75
GLORY OF LEIDEN, extra double nesed toproofs. Do true variety	12,00
GOLDEN SPUR, extra double moved toptoots, per 100	2.75
HORSEFIELDI, exten double mosel toprocts, per 100	3.50
MADAME DEGRAAFF, extra double nosed toproofs, per 100	3.2 (a)
PAPER WHITE GRANDIFLORA - Ze 15 continuoters per 100	1 4,
SIR WATKIN, extra double nos detopronts, per 100	2.2.
VICTORIA, extra double nosed top roots, per 100	. 255

#### Single Tulips

JOOST VAN VONDEL, white, true, per 100	83.00
KEIZERKROON, extra strong toproots, per 100	1.25
MAES, the finest hedding fullps firest scarpet, per 100	2 (10)
OPHIR D'OR, the finest yellow bedding tulips, flowers same time and same	
	1 60
PINK BEAUTY, finest punk smale tulips for 100	1 15
PRINCE OF AUSTRIA, ext. a strong topolots per 100	
ROSE GRIS DE LIN, fine pink bedder, per 100	
WHITE HAWK, the best white for forme and bodding, 1 : 100	0.50

#### Darwin Tulips

from the GREATEST SPECIALIST call varieties a minited to a	
ANTOINE ROOZEN, selected toproots, per 160\$2.	7.5
ARIADNA, selected toproots, p. r. 100	()
BARONNE DE LA TONNAYE, selected toproots, per 100 2.:	35
CLARA BUTT, selected toproofs, per 100 34	(kt
DREAM, selected toproots, per 100	00
FARNCOMBE SANDERS, selected toproots, per 100. 4.:	25
GLOW, selected toproots, per 100	2 1
KING HAROLD, selected toptoots, per 100	15.0
MADAME KRELAGE, selected toproots, per 100	
PRIDE OF HAARLEM, SPECIAL FOR FORCING per 100	
PRIDE OF HAARLEM, for bedding, all toproots, per 100	10
WHITE QUEEN, selected toproots, per 100	25

We also offer one EXHIBITION collection of therty bulbs of randomnets of AMAYILLS HIPPEAS TRUM for Twelve Hundred Dollars; will split at \$45.00 per bulb.

We are sold of our "EXCELLENIA" Lift of the Velley pass, retained the booking orders for delivery 1945; this stock is now conceded to be the finest in existence; only a limited quantity obtainable; cases of 250 paps, \$8.00.

A special track of time EREMURUS ROBUSTUS, EREMURUS ROBUSTUS FUNDSIANUS ALBUS at other fine varieties of this noble and gorgeous plant, that should adorn every border, entire extra strong clumps, ready for delivity, per 18 inch clump, \$1.75 to \$2.75.

You cannot go wrong picking from this list; all varieties are the finest. We have many new things difficult to obtain elsewhere; if you are an exhibitor, communicate with us.

JOHN SCHEEPERS & CO., Incorporated No. 2 STONE STREET New York City

### JASMINUM GRANDIFLORUM

The Sweet Star Jasmine

Ready for winter flowering

6"	pots,	Bushy.	12	to	15	flowering	branch	es	7.50	per	dozen
5"	6.4	**	10	to	15	b. 4	shoots		5.00	6.6	8.8
4"	4.4	4.4	6	to	8	* *	h 6		4.00	4.5	5 6

#### GIANT MIGNONETTE

From 212" nots-\$1.00 per dozen, \$7.50 per hundred.

#### ROSE HILL NURSERIES

NEW ROCHELLE, NEW YORK

. Бачанинын жайынын майынын борулган жайын байын байын жайын жайын байын байын байын байын байын байын байын бай

# Darwin and Cottage Tulips

The Most Exquisite Race of the Late Flowering Tulips

Our catalogue describes 32 of the choicest sorts of Darwins and 29 varieties of the Cottage Garden type.

It also contains a complete list of Hyacinths, Narcissus, Crocus, and all other bulbs for Fall Planting.

Write us for a copy.

Weeber & Don Seed Merchants and Growers 114 Chambers Street, New York

# Julius Roehrs Company Nurserymen and Florists

Headquarters for Orchids, Palms, Stove and Greenhouse Plants, Bay Trees and Box Trees, Laurus Cerasus, Aucubas, Cyclamen, Begonia Lorraine and Cincinnati, Evergreens, Decideous Trees and Shrubs.

RUTHERFORD, NEW JERSEY

# COMPETENT GARDENERS

4 The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us,

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

NEW YORK CITY

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

# KENNEDY & HUNTER SEEDSMEN

Our Bulbs Have Arrived Place Your Orders Early

156 West 34th Street One block from New York

"ONLY THE BEST"

# THE IDEAL GIFT FOR EVERY FLOWER-LOVER

is found in these two wonderfully interesting books. Anyone who appreciates the beauties of Nature will be fascinated from cover to cover. Beautifully illustrated and handsomely printed.

"THE VOICE OF THE GARDEN"
"MY GARDEN OF DREAMS"
By ABRAM LINWOOD US BAN

Price \$1.30 each. Shipped prepaid on receipt of remittance.

THOMAS MEEHAN & SONS

x 65 Germantown, Phila., Pa.



#### **Tree Owners and Tree Lovers**

Will find much to interest and instruct in the

# NEW ILLUSTRATED MAGAZINE "TREE TALK"

Devoted to Arboriculture and Forestry.

All about the planting, care and treatment of trees and shrubs. Accurate informat on about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage. Published quarterly by

THE FROST & B ' RTLETT COMPANY

26 Cortlandt St.

(Suite 212)

NEW YORK

# California Privet

### and Berberis Thunbergii

Grown as Specialties in large quantities

Will have the largest and best stock to offer in the Fall that I have ever grown. Get my prices before you place your order.

# C. A. BENNETT

Robbinsville Nurseries Robbinsville, N. J.

# Dreer's Choice Bulbs for Autumn Planting

- 11 100 (10 m 1 (17) (11) 1 (10) (1)

Planting our high-grade stock will insure a bountiful harvest of blooms next Spring. Make your selections now from

#### DREER'S AUTUMN CATALOGUE

which offers the best selection of Hyacinths, Narcissus, Crocus, Iris, Snowdrops, Scillas, etc., also a select list of Old-fashioned Hardy Plants; plants for the house and conservatory; Hardy Shrubs, Hardy Climbers, Flower, Vegetable and Grass Seeds. Everything seasonable for the Garden, Greenhouse and Farm. Write for a copy and please mention this publication.

HENRY A. DREER

714-716 CHESINUT STREET PHILADELPHIA, PA.

# **CHRYSANTHEMUMS CUT FLOWERS**

supply exhibition I can blooms for any purpose, also a splendid line of Singles and Pompons. If you need flowers for Decorations of any description, write me for prices and varieties.

CHARLES H. TOTTY MADISON, N. J.

Filmandaring to the first of th

# **BURNETT'S**

**FOR** 

# **BULBS**

#### **BURNETT BROTHERS**

SEEDSMEN

98 CHAMBERS STREET. Between Broadway and Church St.

**NEW YORK** Tel. 6138 Barclay

# There are Two Ways of Buying New Carnations

Rooted Cuttings -where you take the chance, or Pot Plants where we take it. We take that chance for the sum of \$4 per 100 and give you good, strong pot plants for the longer price. We offer in the novelties of the year

ALICE. Fisher's new shell pink. GOOD CHEER. Dorner's new dark pink. SENSATION, Dorner's new light pink,

Three varieties too good to overlook. Pot Plants for \$20 per 100, or Rooted Cuttings for \$16 per 100,

Matchless Champion Princess Dagmar Portola Philadelphia

Pot Plants, \$12 per 100; Rooted Cuttings, \$8 per 100.

Let us have your order early. It helps us and it will help you.

AN PIERSON INC.

### The Contents---October, 1914

The United States Botanic Gardens, Washing-		Among the Gardeners	218
ton, D. C	203	Wm. E. Maynard	218
Not Room for Both	206	A Message from the War Zone	218
Propogation of Ornamental Trees and Shrubs	207	American Association of Park Superintendents'	
Too Busy to Read	207	Notes	
	201	Park Department Personals	220
Work for the Month of November		Fall Show Schedule, Horticultural Society of	
By Henry Gibson	208	New York	221
Eremuri in Shrubbery	209	The Gardener's Point of View	222
Herbaceous Perennial Plants By J. Johnson	209	"The Gardener" By Rodda	222
Lawn Sprinkling Through Concealed Irrigation	210	Queries and Answers	223
Park Department Organization		National Associations	225
By Frederick Law Olmstead	212	Local Societies	225
The Herbaceous Pæony	213	Gardeners' Diary	226
Notes by the Way By Wm. H. Waite	214	Nassau County Horticultural Society	226
Destroying Tussock Moth	214	Horticultural Society of New York	226
Influence of Garden Clubs		Newport Horticultural Society	227
By George T. Powell	215	Connecticut Horticultural Society	227
Lillian Shaw	215	New Bedford Horticultural Society	228
Editorials	216	New Jersey Floricultural Society	228
"The Flowers" By Jas. Whitcomb Riley	216	Monmouth County Horticultural Society .	228
Bulletin, National Co-operative Committee .	217	Westchester and Fairfield Horticultural Society	228
National Association of Gardeners' Notes .	217	Short Hills Garden Club	

# Bargains in Shade Trees and Evergreens Why We Are Offering Them So Low



It's now to easy business is poor, if rousely of the work words been to be the word as head of the source as so we also as any other conditions. This to expect of the 1 has to so we attribute to two targets ready as we set the fact that Fall is a to, by the best that fall is a to, by the best true terminal planting. People who before would not have in the fall as much as a few hardy plants of its nother would not here at the half as much as a few hardy plants of us when we have mert the notice compatible season in the rantos and zone away with their running heards leaded with them, besides several good-sized everyte us filling up the back seasons.

Colorado Blue Spruce.

We have 14000 of them.

We have 14000 of them.

Them, and the beginning of them to come, for the last ten years.

The proof of the famous automobile maker took four caroads of evergrees, but and little, last fall and the hard of evergrees they have found out the addentated superority of our stock, as to vicer of growth, dense shalp by formed toos, and the educating of transidanting trees with a compart mass of fine roots that can be dug and shipped entirely without injury to them.

So have in determine a ductions in our slade tires and the last side of our business. Now, as to whe we have made certain reductions in our slade tires and the last the property of them.

Briefly: because some of them will be crowding each other in another year. When this has happened before, we have always moved them to give all the room to grow for making time expansive ters. But now we have this

the suffernment of the semi-timally coming along the line growing higher, we have fig-ured it out that it is better for us to sell a certain num-ber of trees and cut right of the representation of the representation.

cost to move them.

MAPLES.

The big Maples, for in stance, that us of to cost the l'ittsburgh steel man \$90, you can buy of us to by for \$45.

Here are some other prices: 20 ft. high 5 + din 43 ft spread 16 vis oft, 845 reduced to \$28.

4 it high, 6 it dir, 14 ft spread, \$60, reduced to \$35.

26 ft. high, 7 in. dia., 16 ft. spread 20 yrs oft, \$80, \$80 it dured to \$50.

WHITE PINES.

Norway Maple. 6 in diameter, 20 ft. high, 18 ft. spread,

White Line, 3 ft. high at \$20 pr 10, reduced to \$10. White Pines.
Whate Pine, 3 ft. high at \$20 pr 10, reduced to \$11.00 White Pine, 5 ft. high at \$30 per 10, reduced to \$20 00 White Pine, 8 ft. high at \$140 per 10, reduced to \$70 00 White Pine, 10 ft. high at \$200 per 10, reduced to \$100 00 White Pine, 12 ft. high at \$270 per 10, reduced to \$150.00 October and November is the time to plant them and the time they are most needed.

Everything you buy of Hields' is not only guaranteed to grow, but grow satisfactorily. Anything not satisfactory we will cheerfully replace, whether it be a 2-foot high evergree, or a Normal Minde has me a 12 toot spread. Now for business—what can we sell you's core catalogues vin are welcome to. A visit to our nurseries is worth your while. Come and pick out just what you want. You will get exactly what you pack out.



Westburu. Long Island

# GARDENERS' CHRONICLE

### OF AMERICA

THE OFFICIAL ORGAN OF
THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Herti Blines.

#### THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park D velopment and Recreatinal Lacilities,

Vol. XVIII.

OCTOBER, 1914.

No. 6.

# The United States Botanic Gardens, Washington, D.C.

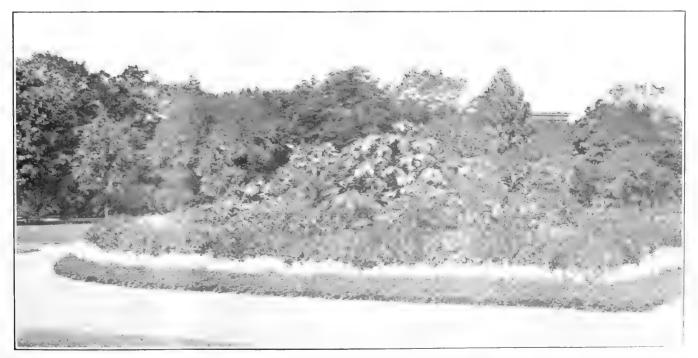
The old Botanic Gardens, nestling at the foot of the Capitol of the United States, the pride of the late William R. Smith, the first superintendent, and which may soon be given acreage in beautiful Rock Creek Park, for there is a strong movement in Congress to bring this about, were conceived by George Washington and are all that remains of a grand scheme of a national college and a national church. It was he who selected the site which they now occupy, and this in face of the stubborn opposition of one David Burns, who wanted this part of the city for himself. In 1822, a botanical society was formed and some planting was done on the dryer portions of the reservation. This society published what is now a very rare book, entitled Prodomus Columbiana, in which was contained a list of the plants in the District of Columbia.

To this collection, John D. Breckinridge, one of the foremost botanists of his time, added large quantities of interesting material. In 1850 Congress made an appropriation for the building of a conservatory and at about this time the plants that had been collected by the Wilkes Expedition, on a trip around the world, which had heretofore been placed in a greenhouse in the Patent Office Square, were placed within the gardens. Mr. Breckinridge was employed to look after the gardens and with him was associated Dr. Asa Gray, an expert botanist. Lack of funds stunted the growth of the gardens, for dur-

ing the years from 1851 to 1854 all expenditures were paid from the funds accredited to the Wilkes Expedition. For a number of years previous to this time influence was brought to bear on Congress to properly appropriate moneys for the gardens, and it was mainly through the efforts of the late Hon. James Alfred Pearce, then chairman of the Joint Library Committee of Congress, that the national body in 1855 enacted legislation "For the support of the public greenhouses, including the pay of horticulturist and assistants THEEE THOUSAND DOLLARS." Great credit indeed must be given to Mr. Pearce, for the Library of Congress, including the Botanic Gardens, the Smithsonian Institution, the Coast and Geodetic Survey, and our exploring and scientific expeditions, all experienced his fostering care and found in him an advocate and a friend.

It was during these troublous times of the garden's life that the late William R. Smith began his great work, for it was in the year 1853 that he assumed the title of superintendent. At that time, at the best, the gardens were for the most part a miserable ague-breeding swamp, the filling in of which required some 500,000 yards of material for the first operations. The work was necessarily slow, but the results have proven themselves well worthy of the labor.

The efforts of Mr. Smith are well known to every stu-



EXOTIC BED, U. S. BOTANIC CARDENS, CONTAINING MANY VARIETIES OF TOOLS AS A STANDARD PROMINED.

LIGHT.
THEW Y

dent of horticulture for through them he has been rightfully styled "The Father of Horticulture." To him much credit is due for the present beauty of the gardens—it was his life's work; he was successful and the gardens themselves stand as a fitting memorial.

The gardens, through their growth, soon became a popular place for students, not only of our craft, but those who assayed to become physicians, chemists, and members of kindred professions, and they obtained much knowledge of the science of botany. This interest is still maintained with the possible exception of the medical students, for less attention, it is said, is now paid to botany in the medical colleges. Their places have well been taken by high school students, the number of which increases annually.

Let us pass by the earlier days of the gardens' history and call upon George W. Hess, the present superintendent, for guidance through the grounds. Mr. Hess needs no introduction to the craft, yet no article based upon this subject would be complete without some reference being made to him.

Mr. Hess was born in the Capitol City about forty-nine years ago. At the age of sixteen he began the study of the business under the tutelage of the late John Saul. After that time he worked for a number of florists, was associated with Edward A. Mosely, of Kenilworth, D. C., specializing in the production of violets and carnations, and at that time the flowers of these varieties which they supplied were the best to be had in this locality. During the administration of President Harrison, Mr. Hess was connected with the Department of Agriculture, and later he connected himself with the late Mr. Doogue, when the latter was in charge of the Public Gardens in Boston, Mass

Mr. Hess later specialized in Chinese and other foreign vegetables, many of which are produced at the Gardens today, and he is able to name each of them in pure Cantonese. A disastrous fire caused him to look for employment in other fields and being familiar with public parks and their administration, and listening to the counsel of friends, he took the civil service examination for employment under the Federal Government. Much to the surprise of his examiners he obtained a rating of 100 per cent. as a specialist in the growing of foreign plants and 98 per cent. in general gardening; marks never before or since equaled.

Having met Mr. Hess, let us proceed through the gate and into the reservation at the southern part. We must stop to admire a fine specimen of the "Tall Cedars of Lebanon," so often referred to, and to the left a magnificent bed of grasses, containing about fifty varieties including arundo donax and pennisetum, with a contrasting border in which is contained a few coladiums. Nearby are the geranium beds, with blooms of rich red and pink, which must be seen to be appreciated.

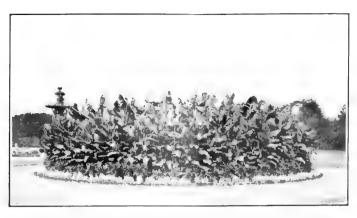
On the other side of the bed of grasses, and near the center of the great conservatory, is the fiscus bed of about twenty varieties, including ficus elastica, ficus panderatua, and many other equally fine plants of this family. This is bordered with hibiscus.

Going down the walk towards the main conservatory we find the exotic lily pond, at this time in full bloom, with a specimen papyrus antiquorum, the grass from which the ancient Egyptians made their parchment paper and which was gathered from the waters of the Nile for that purpose, in the center. Gold fish darting in and around the plants add color to the scene, and this spot is most popular with the juvenile visitors.

As we approach the houses we come in view of the rockery which contains all kinds of hardy herbaceous plants, perennials and ferns that will live out of doors during the winter in this locality. This in itself is worth



A COLLECTION OF SEVERAL VARIETIES OF YUCCA. BED OF GERANIUMS IN FOREGROUND WITH BLOOMS OF RICH RED AND PINK. A CEDAR OF LEBANON TREE TO THE RIGHT.

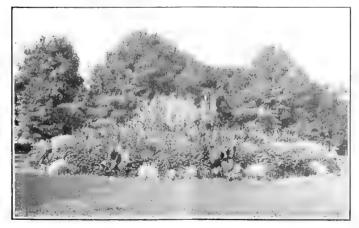


BED OF BANANA PLANTS WITH GLANT CANNAS IN FORE GROUND SURROUNDED BY BORDER OF CROTONS AND AN EDGING OF DWARFFD BON.

a trip of many miles to see when at its best in season. At the door of the conservatory is a full grown cassia tree planted by General Grant during his term of President of the United States and from here can be seen the \$500,000 monument being erected to his memory and which will soon be completed.

As one enters the conservatory his first view is of an umbrella plant at the right and a magnificent specimen at the left of Attalea Excelsior with leaves spreading full thirty feet from the trunk to their tips. Near here is the Travelers' Tree of Madagascar, from which the weary natives of that country obtain water while traveling through the dry sections; and the Royal Palm of Florida, Oreodoxa Regia. Passing into the east wing we find the tree fern Cibotium Regalii beneath the spread of which a half-dozen people could obtain shelter from the rays of the sun in its native country. There has also been planted in this wing coffee trees, Cinchona Superubii, from which quinine is obtained; and the gigantic banana tree, a treat to Northern eyes for at the time of this visit great bunches of fruit were hanging from its branches.

Were one Robinson Crusoed within this conservatory little difficulty would be encountered from lack of food, or medicine, or of plants from which clothing, etc., could be made, for in addition to those above named, there grows with all the hardiness of its native soil Pandanus Utilis, from which the natives of Mauritius make material for clothing for bags and sacks, and this they even use in the erection of their homes; Camphora Officinalis, warranted to keep away moths as well as being valuable in the chemist's shop; Monstera Deliciosa, a bread fruit rightfully named for its fruit has a very delicious flavor akin to the pineapple. Should we require poison for any

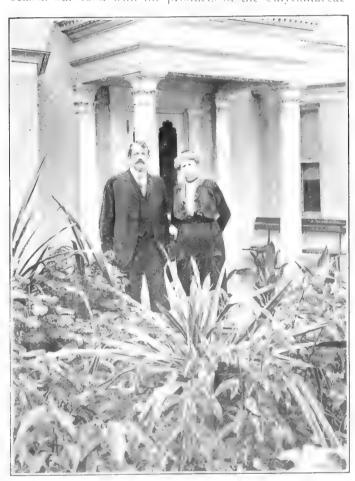


A BED OF MANY VARIETHS OF GRASSES WITH SOME CALADIUMS IN BORDER.

reason we have Lut to tap the Hottentot ordeal poison tree of the species Toxicophlaea, for this is the tree by which the Hottentots sought to tell the guilty from the innocent. It was their belief that the innocent could readily eat the fruit of this tree without being stricken, but needless to say no one ever passed through the ordeal alive. These natives also used the sap of the tree to tip their spears and arrows with deadly poison.

In the octagon house at the east end of the main conservatory is the Strelitzia Regimoe, the bird of paradise flower of South Africa, which unfortunately was not in bloom, and many other useful and ornamental trees and ferns, all brought from other climes.

Passing into the west wing of the conservatory we are enabled to complete our collection of edibles—we can season our food with the products of the Calycantaceae



SUPERINTANDENT OF THE ROLAND CASHAS CLOWN HESS AND MRS HUSS INTRONE OF HILLRESHOLVED CASHA RESHOLVED

callspace of Cincar enum Zeyraneum comanion and if we understand Chinese we can get some sort of food from the Wampie tree and also the pleasant tasting Lichee nuts. Here also are a wild date palm and Sago palm from far off Japan. In this wing later in the season will also be stored the hundreds of palms and ferns which now beautify sections of the grounds, but which will not withstand the onslaughts of winter in this climate.

Having completed a round of the conservatory and its several wings, we come to the front of the gardens and there obtain a view of a wonderful fountain designed by the famous sculptor, Bartholdi, for exhibition at the Philadelphia Centennial in 1878, and which was later brought to Washington and placed in the Gardens. This is a most wonderful piece of work and this spot is the

mecca of thousands of art students annually. Within the huge base at the bottom is a large collection of hardy water lilies and myriads of gold fish are to be seen swimming about. (A photograph of this fountain is repro-

duced on our cover page.)

From the fountain is obtained a splendid view of the superstructure of the National Capitol, and to the right of the former a group of bannana plants which also bear fruit at the present time. Around this group is a collection of giant canna, eight to ten feet high, in full bloom and the whole is surrounded by a border of crotons and an edging of dwarfed box. On the other side is the exotic bed containing about seventy-five varieties of economic and ornamental plants brought from all sections of the globe.

The range of orchid houses holds one's attention for quite a period of time, for here is an excellent display of rare plants, many of which are in bloom. The Holy Ghost orchid, or Sanctum Spiritus, with a most excellent reproduction of a dove hovering above an altar, emphasizes nature's handiwork, and Cattleyas in profusion add their colors to the beauties of the surrounding plants. Another range of houses is devoted to the propagating and growing of ferns and so-called stove-house plants. These latter represent a wonderful collection of plants brought from warmer climates.

Within this reservation are many trees that have historical associations, some of them having been planted by Presidents of the United States and others by noted statesmen; there are varieties which have found a place in the world's history, and their study is most interesting and valuable along educational lines.

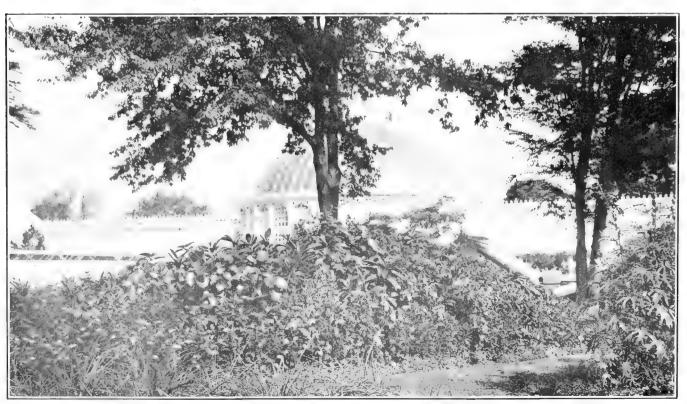
As has been found the case with other visitors, it required a full half day to see all of the wonders of the conservatory, the greenhouses and the grounds surrounding them, and there still remained a wide stretch across Maryland avenue where are located the offices of the superintendent and many additional greenhouses and places for the storage of such plants as cannot be accommodated during the winter in the grounds. Practically all of the trees, ferns and plants displayed in the Gardens, and many thousands that are distributed among the various government branches, for the beautification of public buildings and grounds, and for exchange with other similar parks, are propagated on this side of the fence. No attempt is made to grow flowers that are familiar sights in commercial establishments, attention being devoted entirely to the production of flowers and plants usually found on private estates and of the rarer varieties.

#### NOT ROOM FOR BOTH.

There's not room for the weed in your garden, And the flowering blossom, too; You can't have the noxious nettle, And the violet's lovely blue. For the weed will choke the blossom, And not all the sun and rain Will ever restore its beauty, Or bring back the bloom again.

You can't have the smile of sunshine, And the dark frown on the face: If you have the look forbidding, You will lose the smile's bright grace. And it is better to have the sunshine. And the welcome in the eye. Than the frown that is black and chilling And the clouds within the sky.

There's not room for the light and gladness. And the sweetness in the life, As well as the dark and loveless. And a heart that is set on strife. And 'tis best to be sweet and gentle, To be pure and good and kind, And to keep as a lasting treasure A sweet and loving mind. -Charterbox.



FIGUS BED CONTAINING ABOUT TWENTY VARIETIES, SAID TO BE ONE OF THE MOST COMPLETE COLLECTIONS IN THE UNITED STATES. THE BED IS BORDERED WITH HIBISCUS.

# PROPAGATION OF ORNAMENTAL TREES AND SHRUBS.

Ornamental trees and shrips are grown by different processes, but the ultimate ord is the same in each—the increase of the variety of species, writes M. J. Wragg, in *American Fruits*.

In ornamental trees, especially, we always grow those from seed wherever we can get the best results, but as a rule there are but few that we can get this way; consequently we employ budding or grafting.

We have been very successful in growing one variety of Japan Maple (acer ginnala) by seed, as the seed grown in this country seems to be very strong and perfect and we have had no trouble during the last few years in growing from eighty to ninety per cent. of seed.

So many of our best ornamental trees require so much nursing to get nice, well-grown specimens that we have employed during the last few years budding. To illustrate: If we want to grow Norway Maple or the redleaved variety (Schwedleri) or any other fine Maple, we plant out maple seedlings, bud them at one year old after planting and we always use for our stock beds from trees that have special characteristics of growth. As in the Norway Maple, there are some trees that are so much thriftier, up-right growing trees that we get our buds from these trees. In this way we can grow a uniform block or row of the Norway Maple; but if we depend on seedlings, many of them will be very crooked and unshapely.

In trees of rapid growth like the Soft Maple, Linden, Hackberry, White Elm, Catalpa Speciosa, etc., we generally plant out one-year-old seedlings. After they have been grown one year we cut then off at the ground. The following year they will make very rapid growth.

Early in the spring we are careful to remove all the sprouts from the stem except one, so that by fall of the year in which we cut them back we have tall straight stems which will make the body of our future tree.

I will mention in this connection the Oak, as I consider it one of the coming ornamental trees, and I believe our best results will be from planting our native acorns of our Scarlet, White, Red, and Pin Oaks, transplanting them at one year old from seed.

In shrubs we have to employ different methods to get the best results. I am now speaking as we grow them in

our nursery in a commercial way.

Take, for instance, the Lilac family. There is a large class of these that we grow from layering, which we do by taking the superfluous limbs as they sprout up from near the ground, make a small incision with a knife or other instrument on the lower side near the ground, just cutting through the cambium layer. When these are bent down and all are prepared, we then cover them with dirt all around the plant, covering from three to six inches, according to conditions. We do this along our large plants that we intend to dig the coming fall.

As fast as we dig these plants we trim all these limbs off, and, as a rule, they have all thrown out more or less rootlets. Even if they have only made a callous we save them, planting them out the same. In this way, from a row of common White, Red, or Purple Lilacs of 1,000 we often can get from 3,000 to 4,000 young plants for

lining out and vet have the parent bush.

This is the way that we grow what is known as the common lilac bushes, but if we want to grow nice, upright lilacs, with nice stems, we then employ budding. The last few years we have had good success in budding lilacs on the common Privet (Ligustrum Vulgaris), but we believe for this country that our best lilacs should be budded on Ash, as they make a stronger growth. I have

never found the growing from cuttings very successful. In most of our shrubs 1 prefer growing them from hard wood cuttings.

During the months of September and October I prepare my cuttings for some varieties. As soon as the wood has matured and the leaves will strip off easily or drop I consider them in the proper condition for cutting. I like to use cuttings about seven or eight inches long, tying them in bunches of 100 to 150, and keeping the base or the bud of each cutting the same way. As fast as cuttings are cut, and tied each day as cut, I put them in my storage house with the base down on the floor, where I keep it well wet so as to keep the base of the cutting in a moist condition. After I have prepared a quantity ahead I put them in the callousing pit out-of-doors, digging the pit about ten inches deep, putting the base of the cuttings up, covering it with about an inch of soil.

During the warm weather in September and the first of October these cuttings will callous very rapidly, and as soon as all cuttings are cut and treated in this way I then commence planting them in well prepared ground that has been plowed at least ten inches deep, subsoiled if

necessary.

I generally employ setting to a line, putting my rows three feet and six inches apart and the cuttings in the form from three to six inches, according to variety, pushing the cutting clear down to the top, then covering the top of the cutting with about an inch of dirt the last thing in October.

After the cutting patch has frozen in the fall, I cover these buds with manure to keep a warm, equitable temperature and keep the cuttings from heaving out by frost.

Now the varieties that we get the best results from growing hard wood cuttings are Spireas, Arguta, Van Houtii, Opulifolia, Reveesii, etc. The other varieties of Spirea, like the Colosa Alba, Colera Rubra, Watereri, etc., I think are best propagated from the layering system, or the division of the plants as they are taken up; however, for the largest classes, I think the hard wood cuttings the most preferable.

All varieties of Forsythia grow splendidly from hard wood cuttings, also the Tree Honesuckle, Syringa, Tam-

arix and other varieties.

Those that I recommend layering as the fastest and most economical way of producing young plants would be the Viburnum Family, common Snowball, Tree Cranberry and Dentatum. These all root readily and by laying the lower limbs of the bush down one can increase them very rapidly.

Of course, there are some hard wood cuttings that root more easily than others, but if the above methods are employed no trouble in rooting at least sixty or eighty per cent. of the cuttings will be experienced.

#### TOO BUSY TO READ.

He is a familiar type—the fussy, fretful man who imagines that he is about the busiest fellow in town.

He often dumps in the wastebasket unwrapped copies of business or technical magazines that contain valuable articles bearing directly on his problems. He fondly believes that he is too busy practicing to bother with what others are "preaching."

The trouble with this type of man is that he has not learned that the real executive is the man who so plans his work as to leave a reasonable amount of time for

reading and planning.

There are shoals and breakers ahead when the accumulation of new ideas ceases. The man who declares he has no time to read is unconsciously advertising his small caliber, his slavery to detail, his arrested development—Elliott "Impressions."

# Work for the Month of November

By Henry Gibson.

THE FLOWER GARDEN.

The chaotic appearance of the flower garden at this time of the year makes one almost despair of ever getting it cleaned up. The short dark days are, however, drawing near, and there is no time for these regretful feelings. The first thing in cleaning up the garden is to start a fire of dry leaves and debris that are lying around. Once the fire is got going all the old rubbish from the beds and borders can be piled onto it, and thus be easily disposed of. When the fire is burned out the ashes may be spread on the beds and previous to digging.

All beds and borders that are not to be planted to bulbs should be manured and dug over before the winter sets in. Especially is this so where the soil is of a heavy clayed texture, care being taken to leave the surface as rough as possible so as to allow the disintegrating influ-

ence of frost to penetrate as deeply as possible.

#### THE VEGETABLE GARDEN.

What has been said with regard to the foregoing applies with equal force to the vegetable garden. As fast as the various crops are harvested digging or ploughing should be proceeded with, and if deemed necessary trenching. Trenching is a process too well known to need description here, and especially to those who received their early training on the other side of the water.

Land that has been heavily manured for several years past would be greatly benefited by a good dressing of lime applied now. Land such as we are speaking of contains large quantities of valuable plant food in such a form as renders it unassimilable. Lime acts as a disintegrator; that is, it breaks down or lets loose as it were these chemical compounds so that they are readily assimilated by the active roots of the plants. It is possible by frequent application of lime to break up these compounds to such an extent that the soil becomes impoverished. Therefore apply lime cautiously and not oftener than once in three years.

On the other hand, land that is known to be deficient in any of the chemical elements that go to make up plant food should have these supplied, and there is no better time to do this than the fall.

#### THE FRUIT GARDEN.

The suggestions given with reference to the application of lime and fertilizers are also to be recommended for the orchard and small fruits. Raspberries should have the old canes cut away if not already done. No good comes of having the raspberry patch like the impenetrable undergrowth of a forest. Take the pruning shears and let in some light and air about them. They will then have a chance to get ripened up and stand the winter better.

#### SWEET PEAS.

It seems a far cry from the fruit garden to sweet peas, yet while on the subject of preparing for next season's work it would be well not to overlook next year's supply of these almost indispensable flowers. On many estates they are grown almost to perfection, and no doubt exists that this is only possible where thorough preparation and cultivation is carried out. Sweet peas delight in a deep and retentive, well enriched rooting medium. Such a condition can only be brought about by trenching and a liberal application of manure and artificial fertilizers. Do the trenching now before the ground freezes up. Just how much to trench depends on the extent to which these flowers are to be grown, but the

trenching should not be less than three feet wide and two feet deep.

### THE GREENHOUSES. (THE ROSES.)

Keeping the plants in perfect health should be the aim of the rose grower at this season so as to get them through the winter in as good a condition as possible. Overfed and overwatered plants are not the things to start out with, for such will undoubtedly damp the ardor of the most enthusiastic grower ere spring arrives. Extreme care should be exercised in watering, and only when absolutely needed. But to have the plants too dry is equally harmful. Feeding with highly concentrated fertilizers should be guarded against, as a soft growth is a thing to be avoided. Good liquid cow manure contains all the necessary elements in fair proportions, and is, we believe, second to none for feeding roses.

#### POINSETTIAS.

Few plants are more easily spoiled by uneven temperatures and an excess of moisture at the roots than are poinsettias. A night temperature of 60 degrees should be maintained and ventilation during the day should be carefully attended to. Feeding is in order when the bracts show color. Soot water greatly helps to keep the foliage dark green.

#### BEGONIAS, GLORE DE LORRAINE AND CINCINNATI.

This type of begonia which requires shade from bright sunshine during the summer months should now be accommodated on a shelf near the roof of a warm house and gradually inured to full sun. This will harden up the foliage and add very materially to their keeping qualities when used for decorative purposes. The removal of flower buds should be discontinued now and the plants will remain bright and attractive throughout the fall and early winter months. The persistent manner in which they keep on producing buds and flowers indicates their food assimilating propensities and to keep them in perfect condition they should be supplied with regular doses of liquid manure. As the roots are rather delicate strong stimulants should not be given.

#### CAMPANULAS,

They come in very useful for making a display in the spring when flowering plants are pretty much at a premium. Plants raised from seeds sown in the spring and planted out will have made strong crowns that will stand forcing next spring. Lift these plants, if not already done, so that they make new roots before freezing weather sets in. Give them suitable sized pots and use a good compost. Three parts good fibrous loam, well decayed cow manure, 1 part, and a five-inch pot of bone meal to each barrow load of soil makes a fine growing medium. Pot firmly, water thoroughly and place them outdoors until the frosts are severe enough to make protection necessary. Then place in a cold frame where they can stay until wanted for forcing next January.

#### LIFTING SHRUBS FOR GREENHOUSE CULTURE.

At the present time the gardener is being constantly reminded that he must keep expenses down, and he is expected to get respectable results at the same time. It is therefore up to the gardeners to fall back on their resources and rise to the occasion. Times are hard and, instead of discouraging one's employer and cause him to close down, help tide over the depression by brightening up the conservatory with some of the shrubs, etc., that have been forced and planted out two or three years past.

#### EREMURI IN SHRUBBERY.

To what advantage the giant Eremuri may be planted in the shrubbery and its adjacent parts is well shown in the accompanying illustration reproduced from a photograph taken at Kew in the early summer of the present year. The effects of a thin natural grouping as opposed to overcrowding is so well shown in the figure that little need be said on that point, though attention might well be drawn to the foil of trees, which assists to mirror into greater life and beauty the subject portrayed. In all these directions the illustration tells its own tale.

Another important lesson, equally obvious to the specialist if not to the ordinary gardener, writes E. H. Jenkins in Gardening Illustrated, is the shelter the shrubs afford for the Eremuri during the spring months. It is quite well known, of course, that these plants when starting into growth early in the year are at times liable to be injured by late frosts, hence the value of some such protection as that shown, quite apart from the picture-making effects such associations give to the landscape. Doubtless, similarly suitable positions could be found in many gardens, and by arranging the plants on the southwestern side of shrub groups protecting them from the biting winds of spring which are as dangerous and disfiguring as the frosts. The noblest of these Eremuri, as e. g., E. robustus, E. r. Elewesianus, and E. himalaicus, grow, when established, a great height, the first two being from 6 feet to 10 feet, or occasionally 11 feet, high, the last from 5 feet to 8 feet high. In the first-named the color is palest pink or flesh, in that last-named purest white, hence a Holly or something akin makes a good foil.



From Gardening Illustrated. EREMURUS ROBUSTUS AMONG SHRUBS IN THE ROYAL GARDEN, KEW, ENGLAND.

Their root-vigor, too, is proportionate to their imposing stature, as witness the rope-like thongs which, like the spokes of a cart-wheel, extend to several feet from the central crown. Hence, preparation of the soil might well extend to several feet, while spade or fork work should be dispended with in the immediate vicinity of the plants.

With such as Bungei (yellow), Shelford (bronzy yellow), Warei (salmon), and others, a less vigorous rootsystem prevails, with more stay-at-home and pliant rootfibres, hence for these soil preparation should be restricted accordingly. Those like Shelford and Warei, possessing bronze and salmon shades, and which, starting later into growth, require less protection from frost, are seen to the best advantage with the sun upon them. The best planting season for these Eremuri is September and October, and while all may be inserted 6 inches below the surface, it might be well to remark of such vigorous sorts as E. robustus that the plants occasionally force themselves to the surface, leaving a vacuum immediately below the crown. This upward movement is probably as much due to the peculiar crown-upon-crown formation which goes on year after year as to great vigor, and is not very apparent unless the examples are of exceptional strength, or have been some years in position. When it occurs, lifting and replanting are the only remedy.

E. H. JENKINS.

#### HERBACEOUS PERENNIAL PLANTS.

By J. Johnson.

Though the spring months are considered by some to be the best season in which to prepare and rearrange the borders and to plant out hardy perennials I believe that the work could be even more effectively carried out at this season. It is an advantage if the roots can be started in the fresh soil in autumn while the ground still retains some of the summer's heat and the plants become established before severe frost sets in. The colors and habits of the plants being still fresh and vivid in the memory rearrangement can be done with half the trouble, and as the pressure of work in other departments is not so great at this season as in the spring months planting might be done more satisfactorily now than if deferred.

Generally speaking perennial flower borders benefit by being overhauled at intervals of three years, and on each occasion the ground requires to be deeply dug, or better still, trenched. At the same time a heavy dressing of farmyard manure should be given together with a light dressing of bone meal. The plants are usually gross feeders and readily respond to a deeply worked and well prepared rooting medium. When planing the arrangement it is well to remember that though hardy perennial plants predominate this class of plant should not be grown exclusively if the best possible display of flowers be required over an extended period. While it is true that a selection of perennial plants could be made that would furnish flower from early spring until late fall, I think better results are obtainable by the introduction of some of the best half-hardy and annual bedding plants. These latter plants usually continue in flower months at a stretch while many of the most handsome perennials last but a few weeks.

In gardens where several such borders exist the object should be to avoid a sameness of things. Many gardens resplendent with borders of mixed hardy plants are too frequently disappointing because one border is typical only of its neighbor. The best gardeners avoid stereotyped methods of planting even to the extent of not using the same kind of plants in different borders, and in this way gardens become what they should be-gardens of

interest.

# Lawn Sprinkling Through Concealed Irrigation

By Laurie Davidson Cox.

The excessive cost of maintenance is one of the most serious problem which confronts the park builder in the climate of Southern California, writes Laurie Davidson Cox, landscape architect, Park Department, Los Angeles, Cal., in *The American City*. This is because the maintenance is continuous throughout the year, during practically all of which time artificial irrigation must be resorted to. Any eastern park official who has struggled with a much used lawn during an August drought will realize what ten months of such conditions must mean to us here in Southern California.

Four years ago when this department undertook, as part of a progressive park system, the problem of re-

ducing maintenance costs, the question of lawn irrigation was seen to be one of the chief features of the problem. In an attempt to reduce this item, recourse was had to a system making use of fixed sprinkler tops supplied by underground pipes. The system was worked out in this department under the direction of the superintendent, Mr. Frank Shearer, and proved very satisfactory. Today systems more or less similar are being widely used all over Southern Caliessive park system, the problem of redry is desirable. The most ingenious in the problem of redry is desirable.

UPPER ILLUSTRATION SHOWS UNDERGROUND PIPE SYSTEM IN OPERATION. LOWER ILLUSTRATION SHOWS IT INACTIVE.

Since the first use of the system by the Park Department here, there have been numerous new ideas brought forward regarding the form of the sprinkler tops and their arrangement. Some of these are of considerable complexity, such, for example, as the disappearing top for use in shrubbery and flower beds. This rises to a height of several feet to operate and drops below the ground cut of sight when the water is shut off. The simple fixed top is, however, the standard and a number of such tops are on the market. These differ principally in the amount of water which they distribute and the pressure under which they work.

The newer forms of tops are designed so as to withstand weight and hard usage, such as that given by horse and power motors. The earlier forms did not do so, and much breakage of tops ensued. The general principle now is to provide as a part of the top a protecting guard, such as the one now used by this department and shown

in the diagram. Others make use of a spring valve which closes when the sprinkler is not in use and causes the sprinkler to present a plain massive surface capable of withstanding a heavy thrust or pressure. On account of greater strength and toughness, brass or bronze is now frequently used for the material in these tops, rather than composition metal or cast iron, as formerly.

In using the system for shrubbery and flowers a greater variety of sprinkler tops is possible, as the top can be kept above the ground and may be of more delicate construction. For this work a sprinkler which distributes the water so as to leave the walks or other adjacent areas dry is desirable. The most ingenious form yet seen by

the writer is one making use of gas jets set slightly above the ground and arranged in the grass or curb border of the bed.

Besides the system making use of buried pipes and fixed sprinkler tops, there are several systems using pierced pipe which lie flush with the surface of the lawn. Of these the best known is the so-called "Skinner system," the de-tails of which are shown in Diagram Number Two. The system consists merely of a galvanized iron pipe (usually 34-inch is used) with

minute holes punched 16 inches apart, laid flush with the surface of the ground and provided with a patented union and handle which permits the pipe to be rotated without leakage. Such a system will sprinkle splendidly a strip of lawn twenty feet on either side. The system is especially good for flower and shrub borders or for long, narrow strips of grass such as street parkings. It is much cheaper to install than the underground system and distributes the water in a finer mist. It is, however, more trouble to operate, and the labor cost of irrigation is probably twice as great as with the underground system.

The underground system as used by the Los Angeles Park Department consists of a series of pipes laid in radiator circuits 12 to 15 inches deep in the ground, having stand pipes with attached sprinkler tops placed flush with the surface of the lawn at intervals of from 15 to 20 feet. The grass soon covers the tops, so that the system when inactive is absolutely invisible. The tops do not

interiere at all with the lawn mowers, being so laid that the blades pass over them. The spacing of the sprinklers depends on the available volume of water and the pressure and the nature of the top used. A circle whose diameter is the diagonal of a 20-foot square seems in practice to be the maximum area over which water can be uniformly distributed from a single sprinkler top.

Sprinkling systems with underground piping were in use before the development of the Los Angeles system, but all made use of the principle of hose sprinkling with the constant diminution of pressure proportionate to the length of hose and number of sprinklers. The Los Angeles system differs distinctly in this respect, and therein lies the secret of its success over all earlier systems. The principle involved is merely that of the application of pressure to a body of water confined and motionless. The feed pipe forming a complete circuit is of sufficient capacity to furnish all sprinklers with their maximum capacity, and so when the valve is opened and pressure applied the pressure and distribution are the same for each sprinkler.

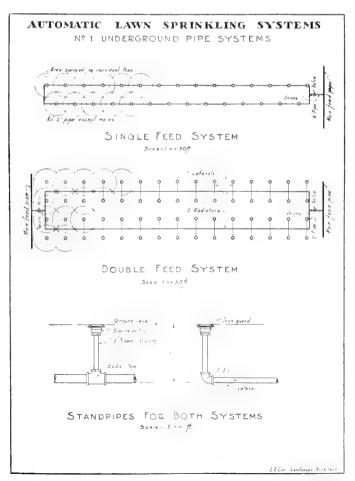
The first installation in Los Angeles was made in Central Square and the single feed system was used. There are eleven circuits in this park and each carries 36 half-inch Wilgus sprinklers covering an area of approximately 17,000 square feet. The total area of Central Square is 5 acres with 4.3 in lawn. An attendant waters this park thoroughly with the automatic system in two hours at a cost of about 70 cents. As it formerly required two men the entire day to perform the same work at a cost of \$5, the saving effected is \$4.30, or over 80 per cent. Also the expense for the purchase of hose is eliminated. This system has been in operation for over three years and has given perfect satisfaction. The only danger is that the workmen, unless carefully watched, will give

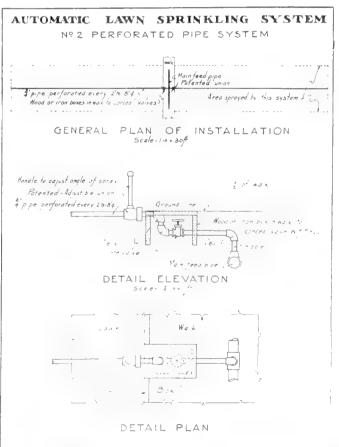
the lawns too much water. Within the last two years some 40 acres of new lawn in Los Angeles parks have been put in with this system. The Skinner system is also employed on areas of such shape as this system is best adapted to, and also on our flowering and herbaceous borders. All new lawn now put in by this department is provided with one or the other of these systems, and it is planned eventually to replace our present hose systems in use on the old lawns with these systems.

Requests for the details of this system have been received from many sources. The system is simplicity itself, the only secret being not to overload the supply pipe. In using this system in heavy soil, under drainage should be provided, and in a section having frost in winter a provision should be made for draining the system in winter and the sprinkler tops should be plugged or replaced by caps.

The cost of installation is from \$400 to \$800 per acre, according to conditions. If galvanized or dipped pipe is used, the life of the system should be fifteen or twenty

INTERNATIONAL
SPRING FLOWER SHOW
New York, March 15-23, 1915
under the auspices of
Horticultural Society of New York,
New York Florists' Club
Preliminary Schedules may be obtained from
JOHN YOUNG, Secy.,
53 W. 28th St., New York.





# Park Department Organization

By Frederick Law Olmstead.

(Continued from September issue.)

Probably the most perplexing and troublesome set of relations to fix between the various parts of the organization are those between the people in charge of playgrounds, etc., and the general maintenance and operating forces. It is obvious that for dealing skilfully with the children and others who resort to playgrounds, baths, social-center buildings, and kindred recreation facilities, quite a different set of people are needed from those fitted for the ordinary work of the physical maintenance and improvement of parks, playgrounds, etc. It is obvious also that these people need to be directed and controlled by a central staff-department expert in this special class of work. The personal requirements for efficient service in this work are peculiar and exacting in respect to tact, imagination, sympathy, firmness, and common sense, as well as in respect to certain kinds of technical training; and the job of creating and maintaining an efficient corps of such people by a process of selection, elimination and wise control calls for a high order of ability, as well as for special training and experience, in the head of the department. There is needed also a very close and intimate relation between the head of this department and the instructors and other workers who are actually dealing with the public in the various playgrounds.

Most of the work for the supervision of which other staff-departments are responsible can be done to advantage by employees who are working under a local division foreman, who are responsible to the staff-department only through that division foreman, and who are transferred at the discretion of that foreman from one class of work to another. This is clearly impracticable in the case of the playground instructors. They must be directly and absolutely under the orders of the head of the recreation department, just as a transit-man assigned to work in any park must be directly under the orders of the head of the engineering department and not, like the construction gang for which he sets the stakes, under the orders of the division

foreman.

On the other hand, it must be borne in mind that the boundaries of the field of work for which a playground or recreation department might properly be made responsible are extremely vague with endless interlocking ramifications. The whole park system exists for no other purpose than to furnish various forms of recreation for the public, and the business of educating and guiding the public to the full and proper use of the facilities provided, and at the same time preventing their abuse. calls for the constant exercise in greater or less degree throughout all the parks of the same qualities of tact, imagination, sympathy, firmness, and common sense, that are so peculiarly necessary in playground instructors. It calls for the exercise of those qualities in connection with various sorts of technical knowledge, as in determining just how far and where the public can be encouraged or permitted to use the lawns for walking. for picnics, and for games, without destructive injury that would actually reduce the net return of public recreation derived from the entire investment. The so-called policing of the parks is one aspect of this group of functions; but park policing cannot wisely be divorced from the business of park maintenance. Some cities have made the serious mistake of turning over the policing of their parks to the general city police de-

partment, whereas it can be done better and more economically by park employees responsible to the local division foremen. Generally, one man can unite the functions of a maintenance laborer and of a guard; at times in the larger parks and on the busy days men must be assigned to the sole duty of watching and directing the users of the park. It is the concentration of certain kinds of public activity on the playground areas and bathing-places, etc., that makes possible and justifies the further specialization of expert playground instructors and the like in charge of such places. There are many places in the parks where an isolated ballfield or a few tennis-courts or a few swings add materially to the recreation facilities, yet where there is not sufficient justification for stationing a playground instructor, and where the control of the public using these facilities must, for economy, be exercised by the same man who does the labor of maintenance.

In view of all these considerations, I believe the most satisfactory method of adjusting these duties and responsibilities is the following: There would be a staffdepartment of recreation under a thoroughly competent chief with an adequate staff of assistants. He would receive the orders of the board through and be responsible directly to the chief executive officer, the department being conducted under the supervision of and in consultation with a sub-committee of the board specializing on this subject. The department would keep a general oversight upon the conduct of all park employees in their relation to the public seeking recreation in any of the parks and playgrounds, and would give advice and instructions to the local division foremen in regard to such matters, just as a horticultural department gives them advice and instructions in regard to lawns, plantations, etc. In those places where the work demands and justifies the assignment of a specialist, the chief of the recreation department, after proper consultation with the division foreman, would have it done by a playground instructor or other employee of his own department, to that extent relieving the local division foreman of the work; just as the horticultural department might send its own planting gang to handle a special job of planting, or its tree gang to do a job of tree-pruning. the work is not thus handled directly by employees of the recreation department, it would of course be done by the force of the local division foreman, through whom the instructions of the recreation department would be transmitted. If any part of the work done by or under a local foreman was not satisfactory to the head of the recreation department, and the circumstances did not justify him in doing it with his own force, he would take up the matter with the superintendent. Similarly if the division foreman felt that instructions received by him from the recreation department or direct work done by the employees of that department within his division were such as to interfere with getting the best results in his division as a whole, he would take the matter up with the superintendent. In this way the principle of the general responsibility of the division foreman for his entire territory would be maintained.

An alternative method would be to segregate certain playground areas from the park divisions in which they occur, to free the regular division foreman from any responsibility for their management or maintenance, and to make the instructor in charge of each of them in

effect a foreman for the area in question, having the same all-inclusive general responsibility for the entire maintenance and operation of the area as the division foreman have over their divisions.

In the case of important isolated playgrounds, this might be a good arrangement; but in the case of playgrounds occurring as incidental features in a large park, or isolated playgrounds of insufficient importance to occupy the entire time of an instructor, it would seem inadvisable. Either method would accomplish the essential purpose of fixing upon some one person the indubitable general responsibility for everything connected with each

piece of ground.

Space does not permit a discussion of all the important functions normally assigned to staff-departments, but I must mention one essential function which ought to be performed systematically and invariably by the same staff-office. It may be performed by the superintendent himself, or by a landscape department, or by a consulting landscape architect without affecting the principle. Every plan for changes affecting the design or appearance of anything for which the commission is responsible, no matter where the plan originates, ought as a matter of invariable routine to be referred to this one office for examination and report before its adoption, and a print or copy kept on file there, in order to make sure that no plan shall be adopted, without deliberation, which is in conflict with plans previously adopted by some other department or preceding administration, and in order to afford a general check upon the esthetic merits and suitability of each plan in relation to the general design of the park, playground or other area which it will affect. It should be the duty of this office to call the attention of any officer of the commission to any plan (originating with others) that would be likely to affect the interests with which that officer is specially concerned, in order to get the benefit of his criticism. To provide thus a central clearing-house for all improvement plans, responsible for pointing out any discrepancies or lack of harmony among them or between any one of them and the general design of any park area, is the best possible means for replacing the too impulsive methods from which our parks have suffered by that stability of purpose which makes for the highest efficiency in such work.

Republished from Landscape Architecture.

#### THE HERBACEOUS PÆONY.

The herbaceous pæony, the "Queen of Spring," so beautiful yet so simple of culture, merits more than a passing thought from garden makers or lovers of flowers, writes H. J. Moore, in *The Canadian Florist*. Its uses are legion, it may be massed or grouped in borders containing other perennials, also along the boundaries of the lawn, or be arranged in beds, and even individually it may be used in any suitable position, while for cutting its flowers, single or double, are equally desirable and equally attractive for general decorative purposes, although for gracefulness the singles are to be preferred.

We are indebted to the old-fashioned P. Officinalis and to P. Albiflora for probably most of our varied and beautiful double kinds, these being obtained by hybridizing the plants mentioned, thence subsequently inter-hybridizing the progeny, the result being the exquisite shades of color which attract and hold the attention of even the most casual observer. Of late years other species have been employed in the production of new varieties, with excellent

results.

Very few plants are so free from the attacks of insect pests as the pæony; for this reason alone, it is, therefore, worthy of more general use in the amateur's garden. The

Japanese singles afford a pleasing contrast to the ordinary double flowered kinds, as does likewise the double crimson flowered P. tenuifolio (P. tenuifolia flore pleno), with its rose-like flowers and its distinctive foliage. For gorgeous effect the pacony is probably unrivaled, especially when it has been allowed to remain undisturbed for many years, and where the clumps are of large size.

Mistakes in the culture of this and other plants are sure to occur. The following precautionary measures may thus obviate much disappointment and discouragement where practiced. Who has not heard the question, What is the matter with my pæonies, they never flower, or if at all, quite indifferently? There are many reasons for this state of affairs, but probably the trouble is due to one of three causes. First, As the pæony naturally forces its crowns (buds or eyes) to the surface where they mature and ripen, nature should thus be respected, deep planting is injurious. Second, The position may be too shaded; partial shade may allow of the production of flowers, sombre shade never. Third, The soil may be light in nature, that is sandy or gravelly, without humus, such a soil being non-retentive of moisture, and, therefore, unable to retain food solutions.

A deep rich soil will suit the paeony eminently. It need not necessarily be light in texture, nor dark in color, if possessing sufficient humus, and fairly retentive of moisture. Good drainage is essential. Never choose a soil or position where this is bad unless it is possible to improve it. Where such a soil does not exist, by incorporating large quantities of humus even a heavy loam may be made productive.

Trenching is the most effective method of preparing the soil. This, however, on a large area is impracticable, resort being made to the plough, which practice is not to be commended on heavy soils unless a subsoiler is used, otherwise a hard layer, known as a plough pan, will be formed into which the production of soil penetrate only with the greatest difficulty, to the detriment of vigorous growth, and the production of flowers. The capillary action of soil moisture will likewise be retarded.

As paeonies establish themselves slowly, and as little root growth is made during the first year, the time of planting is necessarily a great consideration, and while opinion may be divided regarding it, the following argument in favor of fall planting may be taken for what it is worth. Autumn is the proper time for this operation. Under favorable conditions a few roots will be made ere winter arrives, these enabling the plants to start early in the spring, and to make considerably greater progress than were they spring planted. The plants are usually propagated by division, each division containing at least one or more buds or eyes. These should be planted at least three feet apart, four feet being a more desirable distance for the larger growing kinds such as Festiva Maxima, which, as its name implies, means "Large Feast."

When planting, do not cover with more than two inches of soil, deep planting favoring the production of weakly infertile stems, rather than of flowering growth. This is noticeable especially in the case of many specimens planted in lawns. An open sunny position is the best, and being hardy no protection other than a mulch of stable manure is essential to the welfare of the plants. Cultivation is most essential in the case of the pæony. In spring the winter's mulch should be worked into the soil to fertilize it, and during the summer hoeing and raking should be practiced even if only to conserve the moisture. Where large areas are planted the cultivator should be used as much as possible.

New varieties of the pæony are raised from seeds. As four and five years must clapse ere the plants flower satisfactorily, this work had better be left to the hybridizer.

#### NOTES BY THE WAY.

BY WM. H. WAITE.

Lilia Americana, the American Linden, also called the Lime, Basswood and Whitewood. The accompanying illustration is of a specimen on the lawn at Seven Oaks, Mamaroneck, N. Y., where P. W. Popp is superintendent. As will be seen from the photo, the subject makes a stately and handsome specimen when given proper room to develop.

The Lindens are very desirable trees in every way; they are symmetrical, in habit of fairly rapid growth, and not subjected much to the ravages of insects and disease.

The accompanying photo of a group of members of the X. A. G., caught in a happy mood, perhaps needs no explanation, yet a few words of introduction on each may not be amiss.

Leading from left to right, we have J. Scheepers, a native of Holland, yet now a naturalized American, and who is doing much to raise the standard and quality of bulbs. He is an enthusiastic bulbist and is always willing to impart his knowledge to others. Next to him is James Stuart, our able treasurer. He is a well-known grower and exhibitor, and presides over the beautiful place of Mrs. Constable. He has always something of interest to show the visitor, whether it be his Nerines, Cyclamens, Calceolarias or his beautiful perennial garden. He was our host on this occasion, and the picture was



LILIA AMERICANA, ON THE LAWN, SEVEN OAKS.
MAMARONECK, N. Y.

made after we had fully partaken of his and Mrs. Stuart's hospitality, this no doubt accounting largely for the happy smile on the face of our next friend, P. W. Popp. He is well known as the novelty man, for he has always something new to show. But it is in Gladiolus and Dahlias that he specializes, and his annual exhibition of these flowers at Seven Oaks is an eye-opener to many.

We now come to happy Sam Redstone, who for the present has given up the growing end and is now repre-

senting Hitchings Company. Sam is known by all the gardeners in the East and is always welcome. We all know what he can do as a grower, having seen his wonderful roses and carnations at many exhibitions. And last, but by no means least, we have Thomas Aitchison, who presides over Mr. Straus's place at Mamaroneck. He is a redoubtable Lowler, a good grower and a winner of many premiums for his dainty table decorations.



MESSRS. SCHEEPERS, STUART, POPP, REDSTONE AND AITCHISON.

# DESTROY EGG MASSES OF TUSSOCK MOTH AFTER LEAVES FALL.

Washington, D. C.—The caterpillar of the tussock moth, which is noticeable because of three long black tufts of hair protruding from its yellow body, has done considerable damage to many shade trees in the city of Washington during the summer and fall. This insect, which extends through the Eastern United States, as far west as Iowa, seems to prefer poplars, maples, elms, alders, birches and willows. Besides injuring trees, its barbed hairs occasionally produce considerable irritation on the skin of people upon whom the caterpillars drop. To control the ravages of this pest the coming season, the conspicuous white-egg-masses laid by the moth, should be destroyed after the leaves have fallen, when they may be very easily noticed.

The United States Department of Agriculture's entomologist considers the above method preferable to that of banding the trees after the egg masses have already been laid. During the past season a number of trees in the city of Washington have been banded to prevent the moths from climbing up their trunks when there were already egg masses above the bands which hatched out caterpillars. These caterpillars were prevented from coming out of the trees as much as others were prevented from coming into them. Of course, if the owner of a tree is sure that it is absolutely free from egg masses (which are always conspicuous and usually are found low down on the trunk), he may use a band to advantage to keep out intruders. For this purpose insect lime, of which there are several brands on the market, is the best substance, and a ring made around the tree will give service for several weeks in warm weather without being renewed.

As soon as the leaves have fallen, egg masses should be scraped from the trees and then destroyed by burning. The work must be absolutely thorough, and not an egg mass overlooked. A better way, however, is to use applications of creosote oil on the eggs.

### INFLUENCES OF THE GARDEN CLUBS.

By George T. Powell.

A universal interest is growing in horticultural work, and garden clubs are being organized in increasing numbers. The advantages of co-operative effort and action are many, and they are being better understood. Broader knowledge and information may more readily be obtained, while exhibitions are of far larger value and interest through organized clubs or societies than are possible through individual work.

Every club must work out and pursue such policy as is best suited to the local conditions, which vary widely. The Onteora Garden Club, recently organized in the Catskills, has entirely different problems to meet at an elevation of twenty-five hundred feet than the clubs working on Long Island, about Philadelphia, or in New Eng-

land.

Frosts occur in the Catskills in every growing month of the year, while in some instances soil has to be transplanted and placed between rocks to make a place for plants. Winter temperatures are at times more than 30 degrees below zero, which makes the problem of the selection of trees and shrubs quite different than that for the deep soils of sections of milder climates. The adaptability of trees and plants to locality requires knowledge, and this may be obtained through an organized source much more advantageously.

Garden clubs at the present time are being organized along somewhat different lines than heretofore. Committees are appointed for specified work, that the highest degree of efficiency may be had in every department of the work. The Onteora Club, in addition to others, has a committee on home gardens, to carry its activities out to the farms of the locality, and in order to reach the farm homes it has provided for associate members, at an annual fee of one dollar, that farmers and their families may have the advantages of the club, which will be helpful in improving farm home life, and its surroundings, through simple, inexpensive means for beautifying the home in garden work that shall include some flowers and shrubs, along with a wider and better variety of vegetables and small fruits, that will add to the dietary of the farm table.

At a recent flower show of the Lawrence Garden Club, of Lawrence, Long Island, one of the members brought a most excellent and beautiful exhibit of fruit, composed of apples, pears, peaches and plums, from a "patriotic motive," that in these times of so much distress, caused by the high cost of foods, it could be shown what might be produced from the sandy soil of Long Island to contribute to the food necessities of many people.

At the first meeting of the recently organized garden club, of East Hampton, Long Island, one of the special lines of work indicated is to be that of civic improvement. The trees of that very beautiful summer resort were devastated the past season, the foliage being greatly injured by vast numbers of the tent caterpillars that were a scourge in many parts of the country. Information is to be disseminated on the control of such a pest that the trees may be saved and the great beauty of the place kept unmarred. Local pride is to be stimulated that better roads and streets may be maintained.

Another newly organized garden club at Sea Bright, N. J., is equally interested in making the club of value to the community outside of its organization. In all of the clubs are members who take much personal interest in their gardens. They make a study of plant life to know of its requirements in propagation, in feeding, in right pruning; in fact, they want to work intelligently and to bring out the best in plants in growth and development.

That is the real true spirit in garden work, the love of the plant, which always thrives and responds to such care.

The work of these clubs is not to cease when their members close their houses in the country and leave their gardens regretfully behind. They plan to hold meetings in their parlors, and at city club rooms, where courses of lectures on specific subjects will be given, and make a study of the soil, trees and plants—make notes in regular class-room work, obtain the best literature and return to their gardens in the spring, better prepared to obtain the best results.

With such standards as this towards which to work; with the broad and well-considered plans for doing the best quality of work; with the interests of rural communities at heart in an awakened appreciation and regard for the life and protection of trees; for better roads; for better schools, where children may have more of inspiration brought to their lives through better methods of teaching, including more of nature subject, garden clubs in the future, working upon such lines, are going to become a most important factor in their influence upon rural conditions and the country life uplift in which there is so universal an interest.

### LILLIAN SHAW.

The many friends among the gardening fraternity of J. Austin Shaw will be sorry to learn of his sad bereavement in the death of his oldest daughter, Lillian, which occurred at Clarksville, Catskill Mountains, N. Y., on October O.



THULAN SHAW.

Miss Shaw was born at Oshawa, Canada. During the past five years she was engaged in tutoring in Flatbush. Brooklyn and New Jersey, and her popularity among her pupils was attested by the large number which attended her funeral, at the Methodist Episcopal Church, Borough Park, on Monday, October 12.

The floral tributes which filled the home and church showed the universal esteem and love in which Miss Shaw was held by all who knew her.

THE

# GARDENERS' CHRONICLE

OF AMERICA.

Published by

## CHRONICLE PRESS, Inc.

Office of Publication

236 WILLIAM ST., NEW YORK.

MARTIN C. EBEL, Managing Editor. EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.00 Foreign, \$1.50 Entered as second class matter at the Post Office at New York, N. Y., under Act of Congress of March 3, 1879.

Published on the 15th of each month. Advertising forms close on the 10th preceding publication,

### OFFICIAL ORGAN OF

#### ASSOCIATION NATIONAL OF GARDENERS

President, WM. H. WAITE, Yonkers, N. Y. J. W. EVERETT, Glen Cove, N. Y. Treasurer, JAMES STUART, Mamaroneck, N. Y. Secretary, MARTIN C. EBEL, Madison, N. J.

#### TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheitz, Ogontz, Pa., William Duckham, Madison, N. J.; Alexander MacKenzie, Highland Falls, N. Y.; John H. Dodds, Wyneete, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1915-John Shore, Harrison, N. Y.; Thomas Proctor, Lenox, Mass.; William N. Craig, Brookline, Mass.; Frank E. Witney, Fishkill, N. Y.; Robert Williamson, Greenwich, Conn.; F. Kirk, Bar Harbor, Me.; James Bell, New York, N. Y.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President,
GUSTAVE H. AMRHYN,
New Haven, Conn.

Secretary-Treasurer, ROLAND W. COTTERILL, Seattle, Wash.

JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

Vice-Presidents, CARL W. FOHN, JOHN HENDERSON, Colorado Springs, Colo. Montreal, Canada. CHARLES HAIBLE, J. H. PROST, Newburgh, N. Y. Chicago, Ill.

Vol. XVIII.

OCTOBER, 1914.

No. 6.

The beneficial influences of flower shows was once more demonstrated by the exhibition of dahlias and other autumn blooms held at the Second National Bank, Paterson, N. J., under the direction of Wessels Van Blarcom, the assistant cashier, and which attracted large crowds to the bank. The show was held under the auspices of the Paterson Floricultural Society.

The magnificent flowers were in vases and were placed on long tables running the length of the bank. The visitors were shown through the bank by Messrs. Van Blarcom, William D. Blauvelt and Edwin N. Hopson, officers of the institution. The exhibit was a great credit to the flower growers of the city and proved a pleasure to all who witnessed it.

Commenting on the show, the local press wrote editorially:

"It is estimated that 5,000 people visited the exhibition held in the Second National Bank last Saturday. The blooms were of unusual beauty and size and spoke in the highest terms of the patience and care of the exhibitors. The front and back yards of this city have produced some admirable gardens this season and never before have so many ardent and faithful workers been found here. The children have been encouraged to cultivate gardens, with the result that never before in the city's history has floriculture been so city-wide. Seeds that had been freely distributed in the public schools early in the season have since beautified many a back and front vard and all summer hundreds of boys and girls have spent many hours at gardening.

"All this will have its good effect on the community. For no matter what the nationality or the style involved, a fine garden reflects the character of its maker. But if the garden reflects its maker's temperament, it is no less true that often a garden influences it. In one of the American trade publications appears a story told by the general manager of a coal mining corporation at Weyanoke, W. Va., a settlement in the district sorely afflicted with industrial conflicts. He saw that the average man worked short hours and rarely put in full time every month. This idleness was not voluntary, but came about in the regular course of work. Idleness added to the discontent, so he hit on the idea of introducing into the mountain region the small garden system so profitably practiced by the laborers of England. He tried to induce his men to utilize their spare time in cultivating gardens, and offered prizes for various kinds of vegetables and flower plots.

"At first the miners viewed the proposal with suspicion. One or two won the prizes. The next year the change was remarkable. Out of the 225 men employed at the camp all the heads of families but two had started gardens. And splendid specimens they were, if the account can be relied upon. The women brightened their lives by sowing flower seeds—it was color, and color bright-ened their lives. The mine officials summed up the results by saying that it produced a steady and reliable labor supply and the prettiest and healthiest labor camp to be found anywhere.

"What better testimonial could there be to the elevating and profitable influence of vegetable and flower gardens on the lives of the men and women?"

### "THE FLOWERS."

"Take a feller 'at's sick and laid up on the shelf All shaky and ga'nted and pore-Jes' all so knocked out he can't handle hisself With a stiff upper lip any more; Shet up all alone in the gloom of a room As dark as the tomb, and as grim, And then take and send him some roses in bloom, And you can have fun out o' him.

"You've ketched him 'fore now-when his liver was

And his appetite notched like a saw, A-mocking you, maybe, fer romancin' 'round With a big posey-bunch in yer paw; But you ketch him say, when his health is away, And he's flat on his back in distress. And then you kin trot out yer little bokay And not be insulted, I guess!

"You see, it's like this, what his weaknesses is— Them flowers makes him think of the days Of his innocent youth, and that mother of his, And the roses that she ust to raise-So here all alone with the roses you send-Bein' sick and all trimbly and faint— My eyes—my eyes is—my eyes is—old friend— Is a-leakin'-I'm blamed ef they ain't!"

JAMES WHITCOMB RILEY.

# NATIONAL ASSOCIATION OF GARDENERS

W. H. WAITE, President, Yonkers, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

## BULLETIN NUMBER ONE NATIONAL CO-OPERATIVE COMMITTEE.

The National Co-operative Committee, appointed at the meeting of the National Association of Gardeners held in Philadelphia in April, 1914, to devise ways and means to make the proposed co-operative movement between the national association and local gardeners' clubs and societies operative, submits to the local co-operative committees, appointed to work in conjunction with the National Co-operative Committee, the prime objects of this co-operative movement, which are as follows:

To establish gardening as a profession on a firm foun-

dation in America.

To develop a closer fraternity between those engaged in the profession of gardening and those interested in it.

To make known that the vocation of gardening is not acquired through one or two seasons of work in the garden, but through a thorough training—which demands both a practical and scientific knowledge gained only through years of study.

To provide an educational course whereby those ambitious to gain a general knowledge of the different departments of their profession, and not in circumstances to secure it at college, may obtain it through their na-

tional association.

To make the Service Bureau of the National Association of Gardeners an institution to which those requiring the services of gardeners in their various capacities will turn with confidence for their requirements.

To encourage an exchange of views and the disseminating of reports of the doings and activities of the various local societies, whereby the experience of one society may aid in the development of the other societies.

To bring about more uniform conditions to govern flower shows, through the adoption of rules and regulations and an official scale of points for judging flowers, fruits and vegetables by the various horticultural societies, which could be applied to all shows conducted by clubs and societies participating in the co-operative movement.

To arouse the interest of estate owners, and others interested in gardening, in the activities of the local societies and the national association.

The foregoing are a few suggestions of what the plan

contemplates.

The National Committee recommends that the local committees submit these suggestions as a subject for general discussion at a meeting of their society, with a view of bringing out some thoughts which may aid the cause. It especially solicits suggestions and expressions of sentiment respecting the proposed establishment of flower shows on a uniform basis by the adoption of standard rules and regulations and schedule of points to govern them.

It seeks advice on the establishment of an educational department for the benefit of those who may want to avail themselves of study courses, and suggestions on how the Service Bureau may be conducted to provide opportunities for the many rather than for the few. It should be national in scope, yet local in operation, in that the local societies shall have a voice in the filling of positions in their communities.

The National Committee asks that the local co-opera-

tive committees report to it any recommendations their societies may have to offer; also any suggestions the local committee may deem will further the movement. Make such reports not later than the middle of November to M. C. Ebel, secretary, Madison, N. J., so that the National Committee may submit its plans at the annual convention to be held in Philadelphia the first week in December next.

President Waite has appointed the following committee on arrangements for the annual convention with power to increase its number: Thomas Logan, Jenkintown, Pa.; William Kleinheinz, Pa., and John H. Dodds,

Wyncote, Pa.

The annual convention will be held in Philadelphia during the week beginning December 7, and it is proposed to hold a two days' session, devoting the afternoon of the first day to the annual business meeting; the evening to the annual banquet; the forenoon of the second day to the bowling contest, and the afternoon of the second day to seeing Philadelphia. The full program will be published in the next issue of the Chronicle.

There will be an exhibit of novelties and specimen plants in competition for the association's certificate of merit. In this connection it may be well to call attention to the fact that the association offers a medal for any new varieties of flowers, fruits or vegetables created by a gardener, a member of the association, passed on as meritorious by the committee of judges appointed for that purpose. Fuller details of the exhibit will appear in the November issue of the Chronicle.

There has been no "moratorium" declared on the payment of dues in the National Association. Duplicate bills have been sent out for the 1914 dues, but returns have been slow. Members intending to attend the annual convention will require their 1914 membership card to participate in the business of the convention. This card will be forwarded to members by the secretary on the payment of their dues.

Springfield Centre, N. Y., Sept. 29, 1914. Secretary, National Association of Gardeners:

I write to tender my best thanks to the Service Bureau in general, to you Mr. Secretary in particular, for the kind assistance and valuable advice I have received, and in appreciation of which I have pleasure in enclosing \$5 which I offer to the Service Bureau fund to help forward the good work it is doing for the gardening profession.

I do not know if there is such a fund; if there is not, there certainly should be one; and I trust you will accept this contribution either to add to the fund or to start one as the case may be. I hope that other gardeners who may receive benefit from the Bureau will contribute to such a fund, for it would not only aid them in the future, but the profession as a whole.

ERNEST CHAN

The assistance and advise tendered Mr. Carmon by the Sor. a Bureau was a suggestion that he reconsider his assignates to his employer, and retain his position in these triablesome tilles. The suggestion was favorably received and acted on.—SECY.

## AMONG THE GARDENERS

Frank Everden, for the past three years foreman on the Twombly estate, under Robert Tyson, superintendent. has accepted the position of head gardener on the estate of O. G. Jennings, Fairfield, Conn., where he will assume his new duties shortly.

\* \* \*

Henry Gibson, formerly foreman on the George D. Baker estate, at Tuxedo Park, N. Y., where James Mac-Machan is superintendent, has accepted the position of gardener on the estate of Colgate Hoyt, Oyster Bay, N. Y.

Peter Stobie, formerly in charge of the greenhouses on the Osborne estate, Garrison, N. Y., will leave there on October 24 to take charge of the Mrs. William Lee Cushing estate, at Simsbury, Conn.

2/3 2/3 2/3

Present indications are that there will be keen rivalry among some local teams from the neighborhood of New York in the bowling tournament, at the annual convention to be held in Philadelphia in December. It is stated that at least one team may be found on the alleys at every opportunity it can get to practice.

### WM. E. MAYNARD.

In relinquishing his interest in The Gardeners' Chronicle of America, through the passing of ownership into other hands, Wm. E. Maynard has parted with what he for many years prized as a cherished possession. His disposal of it was due solely to enable him to devote his entire attention to the horticultural pursuits in which he has for some time past been engaged. But the interest Mr. Maynard has always taken in the cause for which The Gardeners' Chronicle stands will however, not diminish, for he says, he may be counted on to respond as faithfully in the future as he has responded to it in times gone by.

Mr. Maynard was born in Ellington, Chautauqua County, N. Y., in 1858. In 1865 his parents moved to Ingham County, Mich., where he later received his first insight of horticulture. He taught school for six years and at the age of twenty-one entered the employ of C. L. Vandusen, at that time a nursery man of Geneva, N. Y. Mr. Maynard has followed the nursery business ever since, remaining in the West up to 1894. He then came East and has since been located in New York City

and its vicinity.

In 1904 Mr. Maynard organized the National Association of Gardeners, the first meeting being held at Macy's Hall, Thirty-fourth street and Broadway. New York City. Its first officers were John M. Hunter, president, now engaged in business for himself in Englewood, N. J.; John Whalley, treasurer, who at that time was aborculturist in Prospect Park, Brooklyn, N. Y., and Wm. E. Maynard, secretary. The association was started with forty members. At the next meeting, which was held at the American Institute, New York City, one hundred and thirty-nine gardeners were present. The publication of The Gardeners' Chronicle was begun shortly after the association was organized and has since served as its official organ.

Mr. Maynard held the office of secretary continuously until 1911, when the present incumbent of the office, M. C. Ebel, was elected. On his retirement as secretary, Mr. Maynard was elected a life member in appreciation



WM. E. MAYNARD.

of the services he rendered to the organization. He has always been found a loyal worker and a staunch supporter of the association's policies.

The report which has been circulating that William J. Collins, connected with Carter's Tested Seeds, Inc., has severed his connection with that firm is found to be without foundation. Mr. Collins is still with Carter's Tested Seeds, Inc., and states that he expects to continue with the company for a long time to come.

## A MESSAGE FROM THE WAR ZONE.

Raynes Park, London, S. IV., Eng., Sept. 25, 1914. To the Editor, Gardeners' Chronicle of America, Madison, N. J.

Dear Sir:

We have recently noticed reference in the American Press regarding the war conditions which unhappily prevail in Europe at the present time.

These references suggest that the United States and Canada cannot look with confidence to Great Britain for their usual supply of seeds for the coming year.

We shall be glad if you will intimate in your columns

that there is no foundation for such fears.

This we feel is a matter of public interest and we in this country have every confidence that the British Fleet will be able to safeguard the high road across the Atlantic and to ensure uninterrupted traffic which will maintain with regularity the commercial relations between the two continents, and our American friends can look to British sources of supply with the same confidence as they have in times of peace.

We would also like to take the opportunity of referring to the many communications which we have received from your side of the Atlantic expressing sympathy with Great Britain in her struggle for the right and they give

us the highest satisfaction.

Your obediant servants,
JAMES CARTER & COMPANY,
Raynes Park, London, S. W., Eng.

# AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATION

G. S. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### RESOLUTION OF THANKS.

Relative to the entertainment of the sixteenth annual convention of the American Association of Park Superintendents, held at Newburgh, N. Y., and New York City, August 24-27, 1914:

Whereas, in Alman Street twelve years to the birthplace and lifelong home of Andrew Jackson Downing, the father of landscape gardening and the park idea in America, the American Association of Park Superintendents found a cordiality of welcome and evident warmth of feeling that made its stay a most pleasant one;

The devotion and self-sacrifice of the park commissioners of Newburgh and their superintendent, our fellow member, Chas. A. Haible, who unstitutingly gave of their time and exerted every effort to add to our comfort, the generosity of the citizens of Newburgh in providing automobiles and tendering us the delightful trip through the Tuxedo Valley and the Harriman Estate, the generosity of Mrs. E. H. Harriman in throwing open her beautiful home for our inspection and in tendering the bounteous luncheon at the Tuxedo Club, the reception tendered by the Coldwell Lawn Mower Company and the continued courtesies and attention bestowed by its officers and employees, and the evident good will and welcome of the citizens generally and the liberal publicity extended by the press of Newburgh, all contributed to our enjoyment while in Newburgh;

The trip down the Hudson River, through the magnificent Highlands and the opportunity afforded of viewing some of the workings of the Interstate Park system at close range and particularly for receiving such an enlightening account of the accomplishment and objects of the commission from its president, Hon. Geo. II'. Perkins, who as host for the trip including the luncheon at Bear Mountain Park is entitled to our most hearty thanks, combined to make a day of pleasure and instruction which

will not soon be forgotten;

The day at New York City with the flying automobile trip over Greater New York with the luncheon at Zoological Park will long be a pleasant memory to those who were fortunate enough to be there and we shall ever be indebted to the New York Zoological Society, to Hon. Cabot Ward, president of the New York Park Commission, and other New York officials for the pleasant day at New York:

Therefore, be it resolved that the American Association of Park Superintendents extends its most hearty thanks and appreciation to all those persons who contributed toward the success of our 1914 convention.

F. L. MULFORD,
W. H. MANNING,
R. W. COTTERILL,
Special Committee.

Some little confusion arose during the past month over the change of the official organ, inasmuch as the Chronicle did not reach our members until a few days after a notice from our former official organ to the effect that hereafter the members, by action of the executive committee, would be required to pay their own subscriptions and requesting a remittance or a pledge to remit. This partial statement of fact had our members guessing for a few days until the Chronicle arrived with the announcement that as the new official

organ of the association it would thereafter be sent to every member in good standing.

Some of our members have written the president and secretary expressing the view that the executive committee had made a mistake in changing the official organ. In justice to the committee and for the information of our members a brief explanation is in order.

Our arrangement with the CHRONICLE will result in a saving to the association of several hundred dollars per year over our previous official organ arrangement, in that our subscription fee per member is twenty-five cents per year less, and we save the former expense of the printing of our convention proceedings and bulletins.

The committee also felt that our former official organ was not giving park matters sufficient attention and that its cemetery features predominated. The committee believes the Chronicle to be a much more attractive publication, and one which will serve our interest satisfactorily. The executive committee believes that it acted for the best interests of the association.

Members are urged to contribute articles for our section of this magazine, as we have all the reasonable space at our disposal which we care to use. Many of our members are specially qualified to write on certain subjects which would be of general interest.

If you can and will write a special article on some subject pertinent to park administration, do so and send it either to the secretary or the editor, and it will take its place in this department. And don't forget to send in photos. The editor says he don't care how much he spends for cuts, if he can get good photos, so have your article illustrated.

If you can't or don't care to write a special article, write the secretary a letter occasionally, tell him what you are doing that is new or of interest to fellow members and he will work it into the news notes of this

department.

We are going to get out of this magazine just what we put in it, so everybody help.

The article started in last month's Chronicle on "Park Department Organization" by F. L. Olmsted, is a gem and should be read by every member. If you missed the first instalment, get out last month's issue and read it, and if you can get your commissioners to read it, it will do them good, as it has some good, sound, practical advice to commissioners which every superintendent or secretary will appreciate.

Members out of employment, seeking employment, etc., are urged to communicate the fact to the secretary. Members knowing of openings or prospective openings should also notify the secretary so that he may be of service in putting disengaged members in touch with prospective employment. Communications along this line will be treated as confidential or given publicity as the writer may direct.

If you have any question or problem regarding park administration on which you want the advice of fellow members, send in your question to the secretary; he will get comments from several members on the subject and questions and answers will be published later for the benefit of all.

Your problem is most likely some other member's problem, and yet one that has been solved by other members. A question box will bring out things which are bound to be helpful to many. Now send in your questions and we'll start a question box next month. It's up to you.

If you have not paid your dues for the current fiscal year, do so promptly, so that the association may conduct its business on a cash basis.

Many of our members have deferred paying their dues until the end of the year or at the convention. To illustrate what this means, it may be mentioned that several hundred dollars of last year's bills had to await the convention receipts before being paid.

This system is all wrong and impairs the credit of the association. Our income is not sufficient to accumulate a surplus as our dues are nominal, and as it does not cost any more to pay them in advance or early in the year, members should try and remit early.

The secretary has sent a due bill to every member not paid up, and hopes for a prompt response.

If you did not attend the convention at Newburgh, you did not get one of those neat five color enameled official buttons of the association. The secretary has a supply on hand, and they will be mailed out to all members who remit fifty cents, the cost price. They were sold at this rate at the convention, and all proceeds go to the association funds.

Members of the association who have severed their connection with park work or otherwise, and have requested that their membership be discontinued, are as follows:

C. H. Guengerich, former park commissioner, Joplin, Mo.; Herbert Greensmith, former superintendent of parks, Cincinnati, Ohio; Phelps Wyman, landscape architect, Minneapolis, Minn.; Myron H. West, park builder, Chicago, Ill.; E. W. Robinson, former park commissioner, Denver, Colo.; J. F. MacPherson, former park commissioner, Springfield, Ill.

## PARK DEPARTMENT PERSONALS

Charles A. Whittet, for ten years superintendent of parks at Lowell, Mass., is disengaged and on the look-out for an appointment, as is Richard Iwerson, formerly superintendent at Calgary, Canada.

Frank Brubeck, for many years superintendent of parks at Terre Haute, Indiana, has severed his connection with the park department, owing to a political situation brought about by a partisan mayor who evidently is not broad enough or wise enough to know that park administration and politics should not be coupled together.

Mr. Brubeck was a regular attendant at our conventions, one of last year's vice-presidents, and an honor

to the profession and the association.

He has entered another line of work for the present, but it is to be hoped that he will sooner or later return to park work and in anticipation of this he intends to retain his membership with the association, as does Secretary Wood Posey who, with Superintendent Brubeck, was also a victim of the political changes.

## TREE SURGERY DEMANDS RELIABLE MEN.

A cavity in a decayed tree is something like a cavity in a decayed tooth. If an unreliable tree surgeon only partially removes the diseased part of the wood, uses no antiseptic coatings in the cavity and fills it up with cement the tree is no more cured than is a person whose decayed tooth has not been properly filled by the dentist. The only difference is that after the tree cavity has been covered, if the work has not been properly done, the tree has no way of making its trouble known except by further decay.

Within the last decade there has been a great increase in demand for surgeons to repair decaying shade trees, but the possibilities of practicing fraud in this profession like the instance just cited have tempted so many unreliable people to double in the science that tree surgery has fallen somewhat into disrepute. The U. S. Department of Agriculture realizes that tree surgery should occupy a high place in the estimation of the public, and has recently issued a pamphlet entitled, "Practical Tree Surgery," wherein suggestions are made for improvement along these lines.

As in all professions, there are reliable and unreliable men and firms competing for contracts in tree surgery. In recent years so many occasions have arisen when property owners felt the necessity of calling in commercial tree surgeons to attend to their trees that there are now numerous firms, both honest and dishonest, engaged in the work.

Besides the careless filling of decayed cavities in trees, there are other practices of certain so-called "tree surgeons" that do the trees more harm than good. Many of these "surgeons," as well as the people who employ them, do not realize the danger arising from fresh injuries to a tree. The tree owner should realize that prompt attendance to fresh injuries will largely do away with the need of tree surgery 15 or 20 years hence. The tree surgeons must realize that if they make fresh injuries in the living bark, when treating decayed portions, they are laying the tree open to more dangers of infection that will result in further decay.

Just as a person is subject to infection through cuts and scratches, trees are rendered subject to infection by having their living bark torn. Notwithstanding this, many tree surgeons use pruning hooks and climbing spurs and cut fresh gashes in the tree. To break off small dead branches a workman may use a long pruning hook as though it were a club. In doing so the hook usually causes injury to the young bark near by. Every new wound may furnish a new point of entrance for decay, even though the old dead branch may have been removed.

The use of climbing spurs should be particularly avoided on trees in vicinities where there is a contagious infection. They simply render the treated tree all the more liable to catch the disease which is "in the air."

The U. S. Department of Agriculture is suggesting a plan that may help put tree surgery on a better basis.

- (1) No climbing spurs shall be used on any part of
- (2) The shoes worn by the workmen shall have soft rubber bottoms.
- (3) Ordinary commercial orange shellac shall be applied to cover the cut edges of sapwood and cambium (which is the soft formative tissue from which the new wood and bark originate) within five minutes after the final trimming cut is made.
- (4) All cut or shellacked surfaces shall be painted with commercial creosote, followed by thick coal tar.
- (5) All diseased, rotten, discolored, water-soaked, or insect-eaten wood shall be removed in cavity work before it is filled.

# THE HORTICULTURAL SOCIETY OF NEW YORK.

The Fall Exhibition of this society will be held at the American Museum of Natural History from October 30 to November 3, inclusive. An invitation is extended to all to make exhibits. Prizes are offered for chrysanthemums, both plants and flowers, roses, carnations, foliage and decorative plants, new plants, and orchids, both plants and flowers.

Three prizes of \$50, \$35 and \$15 are offered for twelve vases of cut chrysanthenum blooms, in twelve varieties, three blooms of each, stems eighteen inches long. This should bring out keen competition.

The schedule follows:

George V. Nash, Secretary.

Schedule of Classes and Premiums, Annual Fall Exhibition, New York, October 30 to November 3, 1914.

#### CHRYSANTHEMUMS-PLANTS.

Open to All.

#### Specimen Bushes.

In not less than 14-inch pots. Class No. First. Second. \$50,00 \$35,00 A-1—Yellow 35,00 50.00 A-2 White 35.00 A-3 Pink 50.00 A4 Any other color 50.00 35.00 Anemone or single any color 30.00 15.00 Sweepstakes, for finest and best Bush Plant Silver Cup

This is the society's cup valued at \$100.

	In not	more than	14-10ch	puts.		
A-6 = Yellow					. 25,00	15,00
A-7 - White					25,00	-15.00
A-8 Pink					25,00	15,00
A-9 Any other	colot				. 25,00	15.00

 $\begin{array}{c} \textbf{Specimen Standards}, \\ \textbf{Not less than 4 feet in diameter, in not less than 14-inch pots}, \\ \textbf{A-10} \quad \textbf{Any coler} \\ \end{array} . \qquad \qquad 20,00 = 15,00 \\ \end{array}$ 

Specimen, Odd Shape.
A-11 Any color 20,00 15,00
For Private Growers.

Stome not love than 2 fact

Stems not less than 2 feet.		
A-22 -Six white	5,00	2,50
A-23 Sry pink	5,00	2.50
A-24 Six yellow	5,00	2,50
A-25 Six red	5,00	2.50
A-26 -Six any other color	5.00	2.50
A-27 -Vase of fifteen, one or more varieties, ar-		
ranged for effect, any other foliage permit-		

Stems 18 inches.

ted. (Exhibitors may supply their own

A-28 -Twelve vases, in twelve varieties, 3	
blooms of each	15.00
Stems not over 15 inches, all named kinds.	
A.20 Collection of twenty-four varieties one of	

24-25 Confection of twenty total varieties, one or		
each variety	20.00	10,00
A-30-Collection of six varieties, one of each va-		
riety		2.5
Growers with over 2,500 square feet of		
glass not eligible.		

glass not eligible.		
Five terminal sprays to a vase, not less than 5 flower	rs to a	spray.
A-31-Collection of Pompons, twenty-four varieties.	6.00	4,00
A-32—Collection of Pompons, twelve varieties	3.00	2.00
A-33-Collection of singles and Anemones, or		
either, twelve varieties	3.00	2.00

#### ROSES-CUT FLOWERS.

#### For Private Growers.

B-7—Twelve American Beauty	6,00	4,00
B-8 -Eighten red	5.00	3.00
B-9—Eighteen white	5.00	3.00
B-10-Eighteen pink	5,00	3.00
B-11—Eighteen yellow	5,00	3.00
B-12—Vase of 50 assorted, arranged for effect	15.00	10.00

## CARNATIONS-CUT FLOWERS.

#### For Private Growers.

C-9 - Eighteen white	3.00	2.00
C-10 Eighteen Enchantress shade	3.00	2.00
C-II Eighteen Winson shade	3,00	2.00
C-12-Eighteen Lawson shade	3.00	2.00
C-13 Eighteen searlet .	3,00	2,00
C-14 Eighteen crimson	3.00	2.00
C-15 Eighteen white ground, variegated	3.00	2.00
Sweepstakes, for the finest vase		Medal
•		

#### FOLIAGE AND DECORATIVE PLANTS.

#### Open to All.

E-1 Group of Stove and Greenhouse Plants, ar-

ranged for artistic effect, to occupy 200		
square feet	75.00	50,00
E-2 Exhibit of Bay Trees, six pairs	40,00	30,00
E-3 Exhibit of Coniters, twenty-five plants,		
twenty-five varieties	30.00	20.00
E-4 Specimen of Begonia Gloire de Lorraine	5.00	2,50
E-5—Specimen of Begonia, any other variety	5.00	2.50
E-6 Specimen of Chrysalidocarpus lutescens		
(Areca Intescens)	20,00	10,00
E-7-Specimen of Howea Forsteriana (Kentia For-		
steriana)	20,00	10,00
E-8—Specimen of Rhapis flabelliformis	10.00	5,00
E-9 - Specimen of any other palm	20,00	-10.00
E-10—Specimen of Cibotium Schiedei	10,00	5.00
E-11 Specimen of Davallia Fijiensis, or its varie-		
ties	10.00	5.00
E-12-Specimen of Nephrolepis exaltata Boston-		
iensis	5,00	3.00
E-13—Display of Nephrolepis exaltata and its varie-		
ties, one plant of each, in not over 8-inch		
pots	20,00	10,00
E-14—Trained Specimen of English Ivy	5,00	3,00

#### NEW PLANTS.

G-1 Any sufficiently meritorious New Plant, not yet in commerce Silver Medal

#### ORCHIDS-PLANTS.

### For Private Growers.

H-10—Collection, not less than twelve species and		
varieties (species to be considered in pref-		
ence to varieties), covering twenty-five		
square teet of table space	30,00	·20,00
H-11-One Cattleya, in bloom	4.00	2.00
H-12—One Oncidium, in bloom	3.00	2.00
II-13—One Vanda coerulea, in bloom,	3.00	-2.00
H-14—One Cypripedium, in bloom		-2.00
H-15-One Dendrobium, in bloom		-2.00
H-16 One Odontoglossum, in bloom		2.00
H-17—Display of Yellow Forms of   Gold Medal	Silver	Medal
('vpripedium insigne, one or } or	0	r
more varieties \$25.00	\$10.	.00
H-18 Display of Laclio-cattleyas,   Gold Medal	Silver	Medal
Brasso-cattlevas, Brasso-lae-} or	0	

#### ORCHIDS-CUT FLOWERS.

895 00

\$10.00

### For Private Growers.

lias, or hybrid tattleyas . .

H-21—Collection to cover ten square feet, arranged for effect, suitable greens permissible)... 10.00 5.00
 Sweepstakes for the best orchid plant exhibited... Silver Medal

## APPLICATION FOR MEMBERSHIP

# National Association of Gardeners

I hereby apply for Membership in your Association: -

Name in full
Occupation
Address \_\_\_\_\_\_

#### Date

10.00

## Reference \_

Forward Application to M. C. EBEL, Secretary, Madison, N. J., with dues, which are \$2.00 annually, including subscription to the Gardeners' Chronicle, the official organ of the Association

#### THE GARDENERS' POINT OF VIEW.

Editor GARDENERS CHRONICLET

May I be parmatted to and a little to the controversy teading "Gardeners" Grievances"? Such conditions as mentioned by Mr. Liston do obtain in this country, but as I have not worked in a sufficient number of places to ascertain whether such conditions prevail I can at least sately say tout they exist, and exactly as described, for I have lived it a lamp ansamitary old shack, vermin infested, and many many times taken a bath in the stoke-hole or greenhouse. But what of it? Merely a means to an end, and all in the game. Why think of those experiences if they cause bitterness of feeling? Comparisons are sometimes odious, impressions sometimes misleading, and it is well to accept conditions anywhere as we find them unless we are in the position to alter them. In whatever country one may be there are many redeeming features which will more than compensate one for the things that are to us strange or not the same as they are at home. Mr. Siston has been rather unfortunate in his experience, while Mr. Smith in his fairly wide experience has been fortunate; neither gentlemen have been hurt, and personally I have enjoyed myself during over a quarter of a century of "ups and downs." with plenty of the latter; but there is no reason why a temporary state of affairs should make one eternally optimistic or pessimistic, and to the young gardener I would say that our calling is the very best that ever existed. Your position at present may not be exactly what you want, but your mind is smouldering, and will presently break out and then you will be kicked out or leave your position voluntarily; in either event you will probably make progress and in reminiscent moods look back with a smile at your past tribulations. VERNON T. SHERWOOD. New Hampshire.

### Editor Gardeners' Chronicle:

Will you allow me the use of a portion of your space to offer a few words of comment on the contention of "Another Assistant" in August issue of Chronice? I agree with "Another Assistant" he should be qualified to strike for himself after fifteen years, providing in that fifteen years he has been given opportunity to round out his experience under an efficient head gardener that would be competent to judge of an assistant's efficiency. The writer being a graduate of the old school has had some experience of the unfairness shown to efficient gardeners. Very often a competent gardener has to work under conditions unfavorable to his profession. Often head gardeners and superintendents are lacking ability and practical knowledge; consequently are not able to judge a gardener's efficiency, not being qualified themselves. I agree with our worthy secretary that the gardener should be recognized for what he is worth, and efficiency should count, as in all other vocations.

CONSTANT READER.

#### To the Secretary N. A. G.:

The recent controversy on the question of cheap gardeners has brought forth evidence which no doubt infers that many of our assistant gardeners are very much dissatisfied with their lot. We are also asked to believe that the dissatisfaction is due to the indifference at our horticultural societies and gardeners in general. It is to the advantage of most gardeners to excite the interest of their assistants, otherwise results cannot be expected. If any indifference is exhibited by gardeners towards assistants it is through the horticultural societies, the really active members of which are chiefly gardeners. Here meetings are arranged, flower shows held, papers on various phases of horticulture read and discussed, but the assistant seems to think that he is not in it, save as a silent listener. True, much valuable knowledge can be obtained by being such, but in this age of young men that is not enough; they demand something more, and many of our horticultural societies are realizing this fact, and have in many cases inaugurated a class for competition among assistants.

This is a move in the right direction, and shows a spirit that it would be well to foster, for we feel sure that the good to be derived from a closer interest and co-operation between gardeners and their assistants would inevitably result in the upraising of the profession.

of the profession.

I beg, therefore, to be allowed to offer a few suggestions whereby I think our horticultural societies may by a little co-operation with the gardeners arouse the now latent interest and enthusi-

asm of some of the assistants,

I would suggest that of the regular meetings held by our horticultural societies one night (say once a quarter) be set aside to be known as assistants' night. On these nights an exhibition could be made of any kind of plants or cut flowers that had been under the care of the assistant for at least three months previously.

When a show would not be practicable a paper on some phase

of horticulture could be presented by some assistant or an impromptu debate started by several of the assistants, the summing up always to be done by the gardener. At the shows a prize could be awarded to the best exhibit, or a scale of points drawn up and a record of the points awarded kept until the end of the year and a prize given the highest number of points. Of course it must be understood that the winner at each respective exhibition might be required to furnish data as to the methods of culture adopted, etc.

We present these suggestions for what they are worth, but we have no doubt that they could be either modified or elaborated, as circumstances demand, and be of inestimable benefit to all concerned. It perhaps demands much of the gardeners, but we feel sure that they would be amply repaid by the greater interest displayed and consequently the better results obtained by their

assistants.

Moreover, herein lies a valuable course of preliminary education and instruction which will be of no small assistance to those who would like to compete for the N. A. G. diploma of efficiency, which if not just yet is bound to come with the onward march of progress.

INTERESTED ONE.

#### YOUNG GARDENERS.

A striking passage in the address which Sir Harry Veitch delivered to the Horticultural Trades Association recently, was one in which he referred to the difference in the young gardeners of today and those of former years. He regretted the lack of keenness and interest in their work displayed by so many. Sir Harrys words came vividly to my mind when reading the address delivwords came vividity to my mind when reading the address denvered by Principal Whyte to the students at the New College, Edinburgh, at the close of last sesson. The Principal took for his subject "Thomas Boston and the Lessons of His Life." Thomas Boston was a famous old Scottish divine whose works had a great vogue in Scotland last century. One of his most famous works was called "The Fourfold State." Principal Whyte quoted what a famous Scottish minister-Dr. Andrew Thomson, of Edinburgh said of that book. "The Fourfold State' had found its way over all the Scottish Lowlands. From St. Abb's Head to the remotest point in Galloway, it was to be seen side by side with the Bible and Bunyan on the shelf in every peasant's cottage. The shepherd bore it with him, folded in his plaid, up among the silent hills; the ploughman in the valleys refreshed his spirit with it, as with heavenly manna, after his long day of The influence, which began with the humble classes, ascended like a fragrance into the mansions of the Lowland laird and the Border chief, and carried with it a new and a hallowed joy." In those days the sons of such shepherds and ploughmen were the young men who recruited the ranks of gardening. profession of gardening seemed to open up a career for them with greater prospects than that of their fathers, and thousands embraced it. Trained in such an atmosphere and endowed with "the power of work," can we be surprised that they impressed themselves on the mind of Sir Harry Veitch? He must have come across hundreds of them, because, true to the instincts of their race, they are kept "haudin' sooth."—William Cuthbertson in Gardeners' Chroniele, England.

#### Editor Gardeners' Chronicle:

I was so interested in reading the article by Arthur Smith on "The History of the Garden Profession and Its Progress," that I feel that I cannot let it pass without congratulating Mr. Smith on it; especially in regard to his reference to the gardeners' guild as organized in England. Having belonged to a guild. I can speak from experience of the advantage of being a guild member. First, a person must be qualified; second, a guild is generally recognized as a safe method of procuring men of ability; and as there were guilds for people in different walks of life in England, they proved of great benefit to those who were efficient and for those who required efficiency. "CONSTANT READER."

#### THE GARDENER.

A King he is, with an army Of countless blooms, of surpassing beauty: They do not have to fight very hard: Bearers of peace, they capture every hearth, With their message of sympathy and love, Creating bounds, no power can dissolve. A King he is, who seed, plant and grow Flowers that so many blessings can bestow.

-Rodda.

## QUERIES and ANSWERS

We believe the greatest good can be accomplished for the greatest

We believe the greatest good can be accomplished for the greatest number, by instituting a query climin; or an exchange of experiences, on fractical propositions, i.e. ur readers.

You are invited to contribute questions, and answer others.
Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.
We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

matter.
Nothing will tend to better fellowship than helping each other.
Take advantage of this "graver in Ber."

Has any reader of the Chronicle ever grown the Princess of Wales Violet or any other single flowering kind in a cold frame successfully? If so, would they please give their methods?—S L., Penn.

In reply to the query, Can single violets be grown successfully in cold frames? violets can be grown successfully, providing the

following methods are carried out:

In the first place, collect enough leaves and put in bottom of frame to the depth of 6 inches. These will keep a steady warmth to the new soil until the plants have established themselves. soil should consist of a good, turfy loam, well broken up, with a liberal supply of bone meal and wood ashes added. A little spent mushroom manure is beneficial to help lighten the soil. Mix thoroughly, and simply put enough into the frame to plant the stock. It is a mistake to use too great a quantity, as this does not dry out fast enough, causing stagnation. See that you have the plants well up to the sash which gives them as much light as possible. The location of the frames would be best facing south, with a good protection from the cutting north winds, which are very prevalent during the winter months. Good, clean, healthy stock, using great care in planting, is one of the chief things to bear in mind, as you have here the foundation of your success. If your plants are grown at home, you will be able to plant with a good ball of soil, and these will go right away without a check.

Keep the frame closed for a few days, and gradually bring them to outside conditions by admitting air according to the weather.

Protection from Frost: Secure some light stable litter and pack same well around the frames right up to the sashes and keep

adding more as the material settles down.

Have wooden shutters and burlap mats in a handy place for covering the sash, whenever a frost is imminent, but do not cover unless you are really obliged to as it is known that violets will stand  $\frac{1}{2}$  degrees or more frost, without protection. If you find at any time your plants had not been covered over night, and the plants are frozen hard, spray them with cold water and cover to protect the sun's rays from striking them. Do this the first thing in the morning, and after a few hours you can uncover, providing the weather conditions permit, and you will find they will be in a normal condition. One of the chief factors to bear in mind is that the violet is a fresh air loving plant, and dislikes to be cuddled up during ordinary weather. Watering is also to be done with care. When the frames are all planted, give them a thorough watering, and later on you must take advantage of a nice, warm morning to do this to allow them to dry out before night. seen violets covered up entirely for over three weeks in the very severe weather, and upon opening them up they were covered with blooms. Princess of Wales is, I think, the best single for coldframe culture, as it will stand more frost than other varieties. Gov. Herrick is also good, coming in earlier.

E. ROBINSON, Groton, Conn.

In answer to S. L. Penn, page 190, Gardeners' Chronicle, September issue, the writer has been growing violets, single and double, all kinds, since 1879, in coldframes. Has grown Princess of Wales. But THE violet is Luxonne, at least in our locality, 11 miles west of Philadelphia. Have been growing it since its introduction, simultaneously with Princess of Wales. I have seen the latter do better in houses than the first, but it stands no comparison with Luxonne in the coldframe, at least with us.

Any kind, including Luxonne, will vary somewhat from year to year, depending on climatic conditions and upon the care exercised in treatment.

To insure success, note: Be sure to get "young" offshoots with nice white roots to them if possible at end of March or the best young plants obtainable. if you cannot get the first. If potted plants, shake dirt off, examine, throw away old stumpy things, muck well what you keep and heel in carefully outside, protecting against sharp late frosts.

As soon as truck patch or field is ready for planting, plant out carefully, but give another mucking before doing so. They ought to grow then. Plant at least 2 feet apart each way. Do not let them grow out of bounds, but sucker occasionally. Keep clean,

well cultivated. Medium loamy or stony soil is best. By or near the end of September is the time to bring them in, with medium balls to them. Handle carefully. If soil is dry, give the plants a good soaking one week ahead.

As for the frames. If location and soil is naturally well drained, nothing else is needed. If not well drained it must be made so. Any material suitable for such purpose will do. But by no means fresh manure. Five to six inches of soil is required. Should be well rotten loamy soil, sweet and possibly some well rotten manure. Try to have plants at least 8 inches from glass, 1 foot will not hurt. Make frames face south to southeast. Give good dip to glass. Study to have things so that you can keep frost out, no matter how cold the weather may be. Have the best of covers and shutters, so you can keep things dry. If needed put an envelope of dry leaves, straw, manure or fodder round the frame. Anything to keep out the cold. Do not expect violets to bloom if the sun does not shine. But if you have a fair amount of sunshine, and you keep out the trost, and water sparingly and on bright mornings only, it you do not forget airing whenever possible, keeping things clean always, then you ought to have Some seasons the writer could pick flowers from Septemsuccess. ber until April constantly, at other seasons not so well. But it is always worth while, and the show and the joy you ought to have during March is inexpressible.

J. W. MERTZ, Rosemont, Pa.

In reply to the query of S. L., Princess of Wales violets can be successfully grown in cold frames in Pennsylvania; at least 1 have never had any trouble in doing so at Reading.

Of course, a continual supply of flowers depends upon the severity of the winter. Last winter there were only two weeks in which flowers were not cut, but in the previous one, when we had the temperature as low as 22 below zero, there were no blooms for about six weeks during the severest weather. At this period, although the frames were well banked with manure and covered with thick mats and boards, the ground inside the frames froze to a depth of three inches. This, however, did not hurt the plants in the least, as the sub-equent cut of flowers left

nothing to be desired. With the advent of hot sun in the spring the glass should be removed altogether and lath or cheese-cloth shading substituted, so as to extend the flowering period as long as possible into April. As soon as flowers cease the clumps should be lifted and the outside growth of single shoots having a few roots taken and planted in a bed of rich soil a foot apart each way and shaded with Lath screens. Some prefer rooting runners in sand, but as all runners are best kept cut off there should be none of them to root. I have never found any difference in results from divisions or runners. It is not, however, absolutely necessary to plant the above in an outside bed, as they may be just as well put directly into the frame in which they are to flower. In this case it is well to set a few outside to provide for casualties.

In case the frames are required for something else then this may be deferred until August or September, but the former is to be preferred as flowers generally commence to appear by the second or third week of the latter month. S. L. can buy field grown plants now, and he will soon have flowers.

Frequent cultivation and watering when necessary are in order

at all times.

For soil I have been in the habit of using that taken from the benches in which mums and snapdragons have been grown the previous winter, taking out a foot of the old soil from the frames, To each bushel of bench soil I add one peck of screened rotten leaves, 12 peck of shredded cattle manure and I pound of bone meal, working the whole thoroughly with the soil left in the It is well to have this done a week or two before planting. The top of the soil in the frame should be a foot below the glass in front.

Fifteen plants are sufficient for a frame 6 x 3 feet. After planting in the frame cultivation must be continued for which purpose one of the hand weeders is a good tool. Keep runners and all leaves showing the smallest spot of disease removed. Water in the morning thoroughly as often as necessary. as the temperature is liable to go below 40 at night the sash

as the temperature is raine to go below 40 at night the sash should be put on, giving all air possible during the day.

Upon a bright sunny day in November I usually apply 1 pound of bone meal and a 12 peck of sheep manure to each frame, manufacts to the strength of the same. working it into the soil with the weeder, giving after a thorough This watering is generally the last which will be rewatering. quired until the lengthening days of the new year.

Frames should face any way from southeast to south, and be well sheltered from northwest and north winds. Banking should not be put off too long so that as much of the warmth absorbed by the soil du it of the support may be preserved.

possible.

Mats and boards should be in readiness to use as necessary. The latter can be bound to a ome size as t easily be made at home of quarter-inch match boarding. Boards are best put over the mats as they keep rain from the latter and facilitate the removal of snow. Covers should be removed for at least part of every day, excepting the frost should be sufficiently severe to freeze the ground inside the frames in which case the cover may remain until a rise in temperature. But this rarely happens in Pennsylvania. Give all the air possible, taking advantage of sunny days in midwinter to clean up the plants and pick the flowers. ARTHUR SMITH. Reading, Pa.

"The article in the September 'Chronicle' on Aquatic Gardening interested me, but why, may I ask, do we find so little aquatic planting on the country estates? Is it because gardeners in general are not familiar with them? My gardener frankly confesses that he does not understand their method of growing and that it is the work of a specialist. Can you recommend any practical books on the subject from which he can secure some knowledge on growing them?"-Estate Owner, Conn.

"Can any of your readers recommend a successful remedy for ridding a badly infested house of the cattleya fly? I have tried spraying and fumigating and even cutting the fly out of the leaf, but I do not seem to be able to get the better of it. Is hydrosyanic-acid gas safe to use in an orchid house, and would this be effective?"-L. M., Missouri.

"I would like to get some information on the cultivating of the blueberry, which I understand is finely grown on some of the estates in Massachusetts. They grow to perfection in our section in the wild state, but we do not seem to succeed in cultivating them successfully. Any information you can give me regarding their culture will be appreciated."—U. M., Nova Scotia.

# **Prize Cups and Trophies** for Flower-Shows, Horse-Shows, Fairs and Other Events

HE collections of prize cups and other pieces of sterling silver and silver plate for trophies, shown by the INTERNATIONAL Store, are the most extensive and varied to be found in New York City, as they represent the products of the many great factories of the International Silver Company.

Trophy committees will find wonderful satisfaction in selecting from such an assemblage, which meets every requirement as to style and form, and ranges from the simplest pieces up to the most elaborate designs, especially created for important events.

# International Silver Company

Succeeding The MERIDEN Co.  $^{\text{Established}}_{1852}$ 49-51 W. 34th St., Through to 68-70 W. 35th St., New York

## ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orlers. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N. J.

### WATER LILIES and SUB-AQUATIC PLANTS

Trees, bushes and percunial plants, everything for the Water Garden or artificial pond. If you are contemplating the construction of a pond write me and I will give you the benefit of my 25 years' experience. Send for my Cattler, containing the best collection of Water Lilies, Hardy and Tender, Hardy Old-Lashioned Garden Flowers, Hybrid Ten Roses, Evergreen Japan Azaleas, Rhododendrous and many choice Novelties. Scod for Book, "Making a Water Garden," 55 cents prepaid, Water Lily, Specialists, Ashington, N. J.

WM. TRICKER, Water Lily Specialist, Arlington, N. J.

# ROSE GROWERS

With a background of fifty years' experience CONARD & IONES CO. West Grove, Pa.

THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES NURSERIES.

There you will find all kinds and you can take your pick from the lest that is grown. Maximum Quality at Minimum Prices. Write W. R. Clucas, Manager.

THE PALISADES NURSEBIES, INC., SPARKILL, N. Y. 

## HAMMOND TRACY

Gladiolus Specialist

WENHAM, MASSACHUSETTS

## айда (т. 11 ж. 11 ж. 12 ж. 14 VAUGHAN'S SEED STORE

Our complete Autumn Catalogue is ready. Ask for it at Chicago or New York

43 Barclay St. New York

31-33 W. Randolph St. Chicago

# HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

## D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

## ORNAMENTAL IRON

For Lawns and Gardens.

Chas. C. Force & Son,

LET US ESTIMATE ON YOUR WANTS. Madison Iron Works, Madison, N. J.

## HARRY BALDWIN

Manufacturer of GREEN-HOUSE SHADING

LATH ROLLER BLINDS

NEW ROCHELLE, N. Y.

าร สดรายด้วง - วารายเท่ยกราย เพื่อแดนแบบขยายเคลื่

## GUIDE TO NATURE THE

EDWARD F. BIGELOW, Managing Editor Devoted to Commonplace Nature with Uncommon Interest.

Subscription, \$1.00 per Year

Published by The Agassiz Association, ARCADIA SOUND BEACH, CONN. . Балоткова, виделения пописия колотков послежник пописи пописи пописи по везителения пописи пописи пописи пописи

## NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists. John Young, secretary, 54 West 28th street, New York.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society. L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 342 West 14th street, New York.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

## LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. Meets first Thursday every month, Horticultural Hall, Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Meets third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Meets second and fourth Fridays every month, County Building, Hartford, Conn., 8

Dobbs Ferry Gardeners' Association, Henry Kastberg, secretary, Dobbs Ferry, N. Y. Meers first Saturday each month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls.

Meets at Poughkeepsie, N. Y., second Wednesday every month except May and June.

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. J. Meets first Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass. Meets second Tuesday every month.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Paterson Park, Baltimore, Md.

Meets second and fourth Monday every month, Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Meets monthly, irregular, May to Octo-ber, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th street and Columbus avenue, New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. Meets first and third Saturday every month, October to April; first Saturday every month, May to September, Horticul-tural Hall.

Lenox Horticultural Society. G. H. Instone, secretary, Lenox, Mass. Meets first Saturday every month.

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary. Meets first Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society. Percy Ellings, secretary, Menlo Park, Cal. Meets second Thursday each month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Meets fourth Friday every month, Mon-mouth Boat Club, Red Bank, N. J.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette street.

Meets first Monday every month, Montreal Florists Exchange.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J.

Meets at Madison, N. J., second Wednesday every month, except July and August, 8 p. m.

Nassau County Horticultural Society. Ernest Westlake, secretary, Glen Cove, N. Y. Meets second Wednesday every month, Pembroke Hall, Glen Cove, N. Y., 6 p. m.

New Bedford Horncultural Society. Jeremiah M. Taber, secretary. Meets first Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street.

Orange, N. J.

Meets first Monday every month, Jr. O.
W. A. M. Hall, Orange, N. J., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London, Conn.

Meets second Thursday every month. 38 Main street, New London, Conn.

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Meets second and fourth Tuesday every month

New York Florist Club. John Young, secretary, 54 W. 28th street New York.

Meets second Monday every month, Grand Opera House.

North Shore Horticultural Society. Jas. Slater, secretary, Manchester, Mass. Meets first and third Fridays every

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. Meets first Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society. M. J. O'Brien, secretary, Mt. Kisco. N. Y. Meets third Thursday every month, except June, July and August, at 8 p. m.; December, January and February, 3 p. m.,

Odd Fellows Hall, Mt. Kisco.

Oyster Bay Horticultural Society.
Fred Kirkham, secretary, Glen Head, N. Y.
Meets fourth Friday every month, Board of Trade, Oyster Bay, N. Y., 8 p. m.

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 711 Westbank Bldg.

Meets first Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, 497 Bradford street, Pasadena, Cal.

Meets first and fourth Friday every month.

Paterson Floricultural Society. Sebastian Hubschmitt, secretary, 61 Seventh avenue, Paterson, N. J. Meets first Tuesday every month, Ro-

maine Building, 8 p. m.

Pennsylvania Horticultural Society. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut street,
Paterson, N. J.
Meets first and last Friday every month,
Working Man's Institute, Madison avenue, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets first Tuesday every month, Horticultural Hall, Philadelphia, Pa., 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. Meets first Thursday every month, Fort Pitt Hotel, Pittsburgh, Pa.

Rhode Island Horticultural Society. A. C. Miller, secretary, 7 Irving avenue, Providence, R. I.

Meets fourth Monday every month, Providence Public Library, 8 p. m.

Shelter Island Horticultural and Agricul-

tural Society. fied Kuldam, secretary. N. Y. Meets first and third Thursdays every month.

Southampton Horticultural Society. William McLeod, secretary. Meets first Thursday every month, Memorial Hall, Southampton, N. Y.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarytown, N. Y. Meets last Tuesday every month, except December, Corporation Building, Tarrytown, N. Y., 7:30 p. m. Annual meeting last Thursday in December.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, Y Meets just Wednesday every month, Paral House, Inxedu Park,

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington, D. C. Meets first Monday every month.

Yonkers Horticultural Society. Thos. Mahoney, secretary, Yonkers, N. Y. Meets first Friday every month, Holly wood Inn, Yonkers, N. Y., 8 p. m.

Westchester and Fairfield Horticultural

Society.

J. B. McArdle, secretary, Greenwich, Conn.
Meets second Friday every month, Doran's Hall, Greenwich, Conn., 8 p. m.

## GARDENERS DIARY

American Carnation Society. Annual show, Buttalo, N. Y., January 15.

American Institute, New York. Chrysanthemum show November 4-6,

Chrysanthemum Society of America. Anmual Show, Indianapolis, Ind., November 6-8,

Dutchess County Horticultural Society. Fall show, Poughkeepsie, N. Y., October

Elberon Horticultural Society. Chrysanthemum show, Asbury Park, N. J., November 3, 4, 5.

Horticultural Society of New York. Annual fall show, American Museum of Natural History. Fall show, October 30-November 3.

International Flower Show. New York, March 17-23, 1915.

Lancaster County Florists' Club, Lancaster, Pa. Fall show, November 5-7.

Lenox Horticultural Society, Lenox, Mass. Fall Show, October 22 and 23.

Massachusetts Horticultural Society, Horticultural Hall, Boston, Mass. Chrysanthemum show, November 5-8.

Monmouth County Horticultural Society. Fall Show, Red Bank, N. J., October 28 and 29.

Morris County Gardeners' and Florists' Club. Fall show, Madison, N. J., October 28, 29,

Nassau County Horticultural Society, Glen Cove, N. Y. Chrysanthemum show. October 29, 30.

New Jersey Floricultural Society, Orange, N. J. Dahlia and fruit show, October 5.

North Westchester Horticultural and Agricultural Society. Annual show, Mt. Kisco, N. Y., October 30-November 1.

Oyster Bay Horticultural Society, Oyster Bay, N. Y. Chrysanthemum show, October

Pennsylvania Horticultural Society, Philadelphia. Fall show, November 3-6.

Tarrytown Horticultural Society. Annual Fall Show, Tarrytown, N. Y., November 4-6.

Tuxedo Horticultural Society. Fall show, Tuxedo Park, N. Y., October 30-November 1.

Westchester and Fairfield Horticultural Society. Fall show, New Rochelle, N. Y. November 4, 5, 6.

#### NASSAU COUNTY HORTICULTURAL SOCIETY.

The annual Dablia Show of the Nassan County Horticultural Society was held at Pembroke Hall, Glen Cove, L. L. on Tuesday. October 6. As far as a dahlia show went it was a failure, as in this section dahlias were so scarce that out of 14 classes there were only 4 classes entered for. Vegetables were especially good, Henry Gaut, gardener to Mr. H. L. Pratt, taking two firsts for collections. In one which was unlimited he staged 86 varieties. There was a good display of outdoor flowers for a collection of 25 varieties and very close competition. In roses the entries were not quite so numerous, John W. Everitt, gardener to John T. Pratt, taking the silver cup for collection of outdoor roses, 12 varieties, 6 of each. In table decoration, it being limited to dahlias. the entries were bad, only two competitors. which did not bring out anything so good as I have seen when competition has been keener.

Class 9.—Best 6 cactus dahlias, 6 varieties, short stems: 1st, H. Godwin (A. Golon, gardener).

Class 10. Best 6 decorative dahlias, 6 varieties, short stems:

Class 11.—Best vase 6 cactus dahlias, 1 variety, long stems: 1st. H. Godwin; 2nd, S. D. Brewster (John Fogerty, gardener).

Class 12.—Best vase 6 decorative dahlias 1 variety, long stems: 1st, H. L. Pratt (Henry Gaut, gardener); 2nd, S. D. Brewstor

Class 13.—Best vase 6 show dahlias, 1 variety, long stems:

Class 14.—Best vase, 12 dahlias, any type: 1st, S. D. Brewster; 2nd, C. D. Smithers (Pierre Charbonniad, gardener).

Class 15. Mrs. E. M. Townsend, special, silver cup, to be won three times. Best collection of outdoor roses, 12 varieties, 6 flowers of each (members only): 1st, T. T. Pratt (John W. Everitt, gardener): 2nd, Harvey S. Ladew (Jos. Adler, gardener).

Class 16.—W. R. Kinnear special, Best 3 vases outdoor roses, 3 varieties, 12 of each: 1st, Harvey S. Ladew.

Class 17.—Best vase 12 roses, mixed varieties: 1st, Percy Chubb (F. Honeyman, gardener): 2nd, T. H. Ottley (Jas. Macdonald, gardener).

Class 18. Mrs. C. F. Cartledge, special. Best collection of outdoor flowers, not more than 25 varieties, I variety in vase: 1st, F. H. Ottley; 2nd, Howard C. Smith; 3rd, W. V. Hester.

Class 19.-Best vase of hardy asters, 12 stems:

Class 20.—Best vase gladiolus, 12 spikes: 1st. W. V. Hester (Herman Boettcher, gardener): 2nd, H. C. Smith.

Class 21.—Best vase cosmos, white: 1st. Percy Chubb.

Class 22.—Best vase cosmos, pink: 1st. Percy Clubb.

Class 23.—Best vase cosmos, red: 1st. Percy Chubb.

Class 24.—Best vase antirrhinum, 12 spikes: 1st, W. V. Hester; 2nd, Percy Chubb.

Class 25.-Mr. A. G. Hodenpyle, special. Best collection vegetables: 1st. H. L. Pratt: 2nd, H. C. Smith (A. Walker).

Class 26.—Shimpp & Walter Co., special, silver cup. Best collection of 12 kinds vegetables: 1st, A. G. Hodenpyle (Frank Petroccia); 2nd, Percy Chubb.

Class 27.—Weeber & Don, special, cut glass vase, value \$10. Best collection 9 kinds of vegetables: 1st, H. L. Pratt; 2nd, A. G. Hodenpyle.

Class 28.—Mr. John Wilk, special. Best

6 kinds vegetables: 1st, T. H. Ottley; 2nd, V. Hester.

Class 29.—Carter's Tested Seeds Co., special. Best collection of salads, tasteful arrangement to count; 1st, A. G. Hodenpyle. Class 43.—Best 12 onions: 1st, H.

Pratt; 2nd, A. G. Hodenpyle.

Class 44.—Best collection herbs, 12 varieties; 1st, Thos. L. Leeming; 2nd, H. L. Pratt.

Class 45.-Best collection outdoor fruit, not more than 12 varieties, arrangement to count: 1st, H. L. Pratt; 2nd, W. V. Hester.

Class 46.—Hohler Bros., special, Six vanicties outdoor grapes. 2 of each: 1st, H. L. Pratt; 2nd, W. V. Hester.

Class 47.—Best bunch greenhouse grapes, white: 1st, H. Godwin.

Class 51.-Best 3 varieties pears, 6 of each: 1st, H. L. Pratt: 2nd, J. H. Ottley.

Class 58.—Best plate any outdoor fruit: 1st, H. L. Pratt.

Class 63.—Frank Connine, special. Best table decoration of dahlias to seat 6 persons: 1st, Mrs. J. H. Ottley (James Macdonald, gardener); 2nd, H. Godwin (A. Go-Ion, gardener).

Special prize to Mrs. G. M. Townsend (James Duthie, gardener) for large collection of dahlias. Cultural certificate to W. V. Hester for 4 varieties apples, 6 of each, and to M. Annskiecwiez for 6 peaches; honorable mention, A. G. Hodenpyle for Giant Fennel, and G. Hawkshaw for pumpkin. John Lewis Childs staged a collection of dahlias, and received honorable mention for seedling No. 2 and certificate of merit for ('elocia, wool flower (new), being a solid hard-like ball, with sprays of the plumosa type all round it. HARRY JONES, type all round it. HARRY MARRY Corresponding Secretary.

### THE HORTICULTURAL SOCIETY OF NEW YORK.

A very successful dahlia exhibition was held, in co-operation with the New York Botanical Garden, in the Museum building of that institution, on Saturday and Sunday, September 26 and 27. It was the first dahlia show given by the society. There was a fine display of this popular flower in all its diverse forms and colors. The most striking

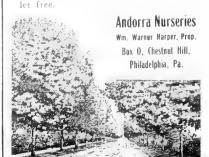


## of growing Shade Trees and Shrubs

produces specimens that will complete produces specimens that will compete a landscape planting in a few short months rather than in years. Cultivation and re-cultivation gives hardiness and vigor to the trees grown the and viger to Anderra Way.

### VISIT ANDORRA IN AUTUMN

when the foliage is taking on gorgeous tints, and the effect you desire around your own place is shown in Nature's colors. Come by motor, train or trolley. If you require immediate planting suggestions, write us—we are here to serve in the Andorra Way. Our booklet free



feature of the exhibition was the display of | blooms arranged by Mrs. Chapman, of Westerly, R. I. Two tables fourteen feet long were artistically decorated by her. One of these tables was especially pleasing, all the tints associated with the foliage and flowers of autumn were so blended and arranged as to produce a most harmonous effect. was the admiration of all. The dahlia is so much more striking thus arranged than in the formal manner customary in exhibitions, that it is surprising it is not more frequently thus displayed.

A meeting of the society was held on Saturday at 2.30, the president, Mr. T. A. Havemeyer, presiding. Dr. Britton, director-in-chief of the New York Botanical Garden. gave a short talk on the origin of the name Dahlia, including a brief account of the distribution of the genus. Dr. H. H. Rusby followed with a short address on the home and environment of the dahlia, illustrated with lantern slides. At the conclusion of this a discussion on the present-day methods of culture was led by Mr. P. W. Popp. in which many took part.

Following is a list of the awards:

Largest and best collection, flowers on short stems: Geo. L. Stillman, first; N. Harold Cottam & Son, second.

Vase of 12 cactus: Head's Bergenfield Nurseries, first; P. W. Popp, second; N. A. Miller, third.

Vase of 12 decorative: W. A. Manda, first; N. A. Miller, second; N. Harold Cottam & Son, third.

Vase of 12 showy or fancy: N. Harold Cottam & Son, first.

Vase of 12 pompons: Wm. Shillaber, first; N. Harold Cottam & Son, second.

Vase of 12 single or collarette: Stillman, first; Head's Bergenfield Nurseries, second; N. A. Miller, third.

Vase arranged for effect: first; Dr. M. A. Howe, second.

All of the above in open-to-all classes. The following prizes were awarded in the

non-commercial classes: Collection of not over 50 blooms: P. W.

Popp, first; Wm. P. Clyde, second. Vase of 8 blooms, cactus: P. W. Popp, first; Geo. D. Barron, second; Wm. Clyde, third.

Vase of 8 blooms, peony-flowered: P. W. Popp, first: Wm. P. Clyde, third. The second was not awarded.

Vase of 8 blooms, decorative: P. W. Popp. first; Geo. D. Barron, second.

Vase of 8 blooms, pompons: Wm. Shillaber, first; Geo. D. Barron, third. The second was not awarded.

Vase of 8 blooms, single or collarette: P. W. Popp, first; Geo. D. Barron, third. The second was not awarded.

The following special prizes were awarded: Wm. Shillaber, for a collection of annuals. bronze medal; Mrs. F. A. Constable, vase of Conoclinium coelestinum; W. Atlee Burpee, certificate each for the new dahlias "Mrs. Hugh Dickson" and "Mrs. W. E. Whineray." and special mention for "Mrs. Geo. W. Kerr"; Lager & Hurrell, for a collection of cut orchids: O. P. Chapman, Jr., for artistic display, silver medal and a cash prize; Geo. L. Stillman, certificate each for the new dah-

Manda, Inc., certificate each for new dahlias "Josef Manda" and "Bohemia Garnet," and man, special mention for "Veronica Manda,"

GEORGE V. NASH, Secretary.

#### NEWPORT HORTICULTURAL SOCIETY.

Three important committees were pointed at the monthly meeting of the New port Horticultural Society, September 21. The society appointed Bruce Butterton, V. S. Meikle and William Gray a committee to co-operate with the American Sweet Pea Society in arranging for the show to be held here next summer. The Newport Garden Society made a liberal donation toward the expenses of a course of lectures that are to be a feature of the winter, and James Robertson, James Bond and William Gray were made a lecture committee. committee, consisting of A. S. Meikle, Winfred Sisson, Bruce Butterton, C. M. Bugholt, James Robertson, John B. Urguhart and Alexander McLellan, was appointed to assist in securing decorations for the coming Y. M. C. A. bazaar.

#### CONNECTICUT HORTICULTURAL SOCIETY.

The annual dahlia and vegetable exhibition held at Unity Hall, Hartford, on September 23 and 24 was an exceptionally good one. One of the largest displays was shown by George L. Stillman, of Westerly. There were excellent exhibits of perennials by J. F. Huss, Warren S. Mason and W. W Hunt & Co., each exhibit comprising in the neighborhood of 100 varieties.

The vegetable exhibits were good and unusually well staged. The judges were G. X. Amrhyn and John N. Champion, both

classes were as follows:

Show 18 blooms, 18 named varieties -N. Nelson, Hartford. Show 12 blooms, 12 varieties -1st, C. Louis Alling, West Haven, Conn.; 2nd, Alfred E. Doty, New Haven. Cactus, 18 blooms, 18 varieties—1st. C. Louis Alling; 2nd, Alfred E. Doty. Cactus, 12 blooms, 12 varieties—1st, C. Louis Alling; 2nd, N. Nelson. Fancy, 12 blooms, 12 varieties 1st. N. Nelson. Fancy, 6 blooms, 6 varieties—1st. N. Nelson; 2nd, A. E. Doty. Decorative, 12 blooms, 12 varieties—1st, N. Slocombe, Farmington, Conn.; 2nd, N. Nelson. Decorative, 6 blooms, 6 varieties—1st, C. Louis Alling; 2nd, A. E. Doty. Single, 6 vases of 3 blooms each 1st, N. Slocombe; 2nd, W. S. Mason. Peony, 12 vases -1st, N. Nelson; 2nd, J. F. Huss. Peony, 6 vases -1st, C. Louis Alling; 2nd, N. Nelson. Peony. best collection John F. Huss. Pompon, 12 vases 1st, N. Nelson. Pompon, 6 vases Pompou, 6 vase 1st, C. Louis Alling; 2nd, N. Nelson. 50 varieties, 3 blooms each-1st, George L. Stillman; 2nd, Warren S. Mason, Farmington, Conn. Collection of Decorative—N. Nelson. Cactus—1st, N. Nelson; 2nd, A. E. Doty. Pompon -C. Louis Alling. Faney-N. Nel-Peony G. L. Stillman. Collarette 1st, G. L. Stillman; 2nd, J. F. Huss. Vase of 25 blooms -1st, N. Slocombe; 2nd, W. S. Mason. Collection of seedlings 1st. J. F. Huss; 2nd, N. Nelson. Floral piece of dah-

bloom 1st, Alfred E. Doty: 2nd, G. L. Still-

Open to all. Gladioli, 12 spikes -A, Righenzi. Six vases of gladioli, 6 blooms each A. Righenzi. Six vases of asters-1st, W. S. Mason; 2nd, A. Righenzi. Asters, 25 blooms, one variety -1st, H. L. Metcalfe, Hartford, Conn.; 2nd, A. Righenzi. Collection of asters, 25 blooms of each—1st, A. Righenzi; 2nd, H. L. Metcalfe. Snapdragon

J. M. Adams, Hartford. Display of Annuals 1st, J. F. Huss; 2nd, N. Nelson. Fruit 1st, Louis Chauvy, Hartford; 2nd, J. F. Huss. Vegetables-1st, J. F. Huss; 2nd, Louis Chauvy. Exhibit of most general merit George L. Stillman. Dahlias in pots A. Righenzi. Dahlias, 12 blooms, one variety 1st, C. Louis Alling; 2nd, N. Nelson.

Specials. By Stumpp & Walter Co., New York. Ten varieties of vegetables -1st, J. F. Huss; 2nd, Alfred Cebellus; 3rd, Louis Chauvy.

By Arthur T. Boddington, New York. Ten varieties of vegetables 1st, A. Righenzi; 2nd, J. F. Huss

By C. H. Sierman, Hartford, Display of erennials-1st, J. F. Huss; 2nd, W. W. 'Hunt & Co.

Special displomas were awarded to John Huss for arrangement of palms and stove plants; G. Minge for group of Boston ferns: to John H. Slocombe, for display of seedling dahlias; to the Park Department for display of geraniums, dahlias and hardy perennials; to W. W. Hunt & Company, for exhibit of bay and bexwood trees.

ALFRED DIXON, Secretary.

#### THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

An enjoyable evening was spent by the of New Haven. Awards in the professional members of The Westchester and Fairfield Horticultural Society who attended the regular monthly meeting held in the society's rooms, Doran's Hall, Greenwich, Conn., Friday evening, October 9, President Williamson presiding. There was a large attendance even for the well-attended meetings enjoyed by our society. The membership is constantly increasing. One active and one honorary member were elected, and several proposals for membership were recerved. The Fall Show Committee reported several liberal contributions to the Premium list; also that the schedules were ready for distribution and everything in readiness for a successful exhibition, which will be held in Germania Hall, New Rochelle, N. Y., November 4, 5 and 6. Information, schedules, entry blanks, etc., may be procured from the secretary of Show Committee, Mr. Oscar Addn, Larchmont, N. Y. Keen competition is anticipated.

In the death of Mr. Henry Darlington, who passed away recently, the society sufters the loss of a life member and good friend whose interest in our welfare has at all times been appreciated by the entire membership. A committee was appointed to draft resolutions of sympathy to be spread upon the minutes and a copy to be presented to the bereaved family. lias "Geo. L. Stillman" and "Searchlight," and special mention for "Fire Girl"; P. W. Popp, for display of collarettes; W. A. G. L. Stillman; 2nd, N. Nelson, Floral piece of dath, ture of the meeting was the lecture entitled lias N. Nelson, Specimen seedling 1st, "Landscape Architecture," by Mr. Nathan G. L. Stillman; 2nd, N. Nelson, Fangest F. Barrett, of New Rochelle, N. Y., to whom

Don't Neglect Fall Spraying

9 9 Modern Method's Demand It

It pays to get in fall spraying whenever possible. There is danger in waiting for spring spraying. "Scalecide" is better than any other dormant spray, either for insects or fungi. Costs no more than lime-sulphur or the less core tive mixtures. O a cooklet "Scalecide, The True S." ed free. B. G. P: 100 a. Dupt. "4", 50 Church St."

# IOSEPH MANDA

Orchid Specialist

West Orange - New Jersey

we are indebted for an enjoyable and pleasing lecture. Mr. Barret gave an interesting description of landscape gardening of the different periods of the olden times down to the present day methods of combining the artistic with the practical side of the gardener's art. The speaker pointed out very plainly the relative positions of the artist and the gardener, and recited some interesting personal experiences that have occurred in a practice of over 50 years. A rising vote of thanks was tendered to the speaker for the pleasure afforded the members. Despite the long drought of the past three mouths there was a remarkably fine display on the exhibition tables. special prize offered by Robert Allen, of Greenwich, Conn., for the best display of six varieties of vegetables grown out of doors was won by John B. Andrew. In the non-competitive exhibition the judges made the following awards: Cultural Certificate to E. Lewis for display of onions "Gigantic Gibraltar"; Cultural Certificate to Robert Williamson for a fine collection of vegetables, also Honorary Mention for a display of peaches, muskmelons and English walnuts; a Cultural Certificate also a vote of thanks to P. W. Popp for an interesting display of Dahlias, six types and 110 varieties were represented. The thanks of the society were tendered to the other exhibitors for their very meritorious display: Carl Hankenson for Hadley Roses, John Beck and Sons for Chrysauthemums "Golden Glow," J. B. Andrew for display of apples; John Couroy for seedling "Mum," a cross between Mrs. H. Robinson and Cheltonii, Robert Grunnert for display of Carnations in variety, James Stuart for vase of hardy, early fl. "Mums." "Normandie" and a fine vase of Conochlinum collestinum, a fine blue colored perennial. useful for cutting and garden decoration. also known as Eupatorium collectinum. Next meeting November 13.

P. W. POPP.

#### NEW BEDFORD HORTICULTURAL SOCIETY.

The annual dahlia exhibition of the New Bedford Horticultural Society held in the Library Building on Tuesday, September 22 and 23, was very pleasing. Owing to weather conditions dahlias in this section have not done as well as usual, nevertheless the tables were well decorated with excellent specimens. The principal competition centered around the class for dahlias arranged for effect with any foliage, covering 30 square feet. Dahlia exhibitions as a rule do not present as attractive an appearance as peonies, roses or chrysanthemums, so, to induce exhibitors to overcome the stiff, set look of such shows, the principal prize was given in this class. The result was very gratifying, the sameness of previous exhibitions disappeared and the hall looked very Arthur E. Griffin superintendent of the Galen Stone place, captured first prize with a stand of crotons, caladiums and ferns intermingled with large vases of dahlias in the rear and specimen blooms in the foreground. W. D. Hathaway, second with a display of the finest blossoms in the show, but lacking in effect enough to lose the coveted first prize. Wm. Keith, gardener for T. M. Stetson, third with a nice

number of flowers, the effect being good, but from the standpoint of a dahlia show, the main display was lost among the green. J. C. Forbes had a fine table comprising vases of single and peony-flowered dahlias. Among the amateurs J. A. Nolet of this city was high man, capturing nearly all the first priezs

Noteworthy seedlings were exhibited as follows:

Mrs. Frederick Grinnell-a deep rich pink peony-flowered variety of excellent form and fair stem. Exhibited by J. P. Rooney. Henry Denison-eactus, clear pink shading lighter toward the centre, of massive build with numerous heavy petals. Exhibited by Forbes & Keith. Mrs. Lillie P. Hathaway, buff decorative of good size with strong erect stem and Miss Edna L. Hathaway a good addition to the list of orange decoratives. Exhibited by W. D. Hathaway.
W. F. TURNER.

#### NEW JERSEY FLORICULTURAL SOCIETY.

The annual exhibition of Dahlias, Gladioli, fruits and vegetables of the New Jersey Floricultural Society was held on Monday. October 5, in the J. O. U. M. Hall, Orange. N. J.

The judges were Wm Duckham, Arthur Herrington, John E. Lager and Ed. Eccles.

Thirty-six Dahlias, 12 varieties: 1st, Mrs. W. Barr, Llewellyn Park; 2nd, W. A. Manda, Inc., W. Orange; 3rd, P. W. Popp. Mamaroneck, N. Y.

Twenty-five show Dahlias in variety: 1st, Peter Hanck, Jr. (gardener, Max Schneider), East Orange, N. J., who won the silver medal donated by the Henry F. Michell Co., Philadelphia.

Twenty-five show Dahlias: 1st, P. W. Popp, silver medal.

Twenty-five cactus: 1st, Mrs. W. Barr; 2nd, P. W. Popp.

Best centerpiece of Dahlia: 1st. Peter Hauck: 2nd, Frank Drews, Essex County Country Club.

Twenty-five Peony flowered: 1st, W. A. Manda, İnc.; 2nd, Mrs. W. Barr.

For the best collection of Orchids, Joseph 1. Manda, West Orange, was awarded first premium. The silver cup for a basket of Gladioli was captured by Max Schneider.
S. and A. M. Colgate, West Orange, won

the first prize of \$20 for a group of foliage plants for effect, with Crotons, Dracænas. nalms, etc.

There were three model gardens, planned in a space 5 feet square. First was awarded to Alf Thomas, gardener to Mrs. Arthur J. Moulton, West Orange, Second, Frank Drews, Essex County Country Club, West Orange. Third, William Zeidler, gardener at Hutton Park.

There were some good displays of vegetables, the best exhibit being by C. C. Goodrich (gardener, Fritz Bergeland).

A cultural certificate was awarded to A. J. Moulton for double Petunias in pots; and for Coleus Pride of Castle Gould and for Nephrolepis: also for C. C. Goodrich, for Cissus discolor.

### MONMOUTH COUNTY HORTICULTURAL SOCIETY.

A regular meeting of the Monmouth County Horticultural Society was held in the Monmouth Motor Boat Club meeting rooms, with President William Metzdorf in the chair. A good attendance was present and a very interesting meeting was the outcome. Several subjects of importance were debated. Prominent among them was

grants use street discharge in the chestnut blight disease. A spirited discussion followed and various opinions were given. The bowling club is getting active again, and it is the earnest desire of this club to bowl a match game once a week all winter from teams picked from the club. Some high scores are anticipated as some of the members are expert in this famous pastime.

The Monmouth County Fair was held recently and a number of valuable cups and money prizes were brought home by some of the members. The fair has a special class for the private competition, which is very keen and interesting. The premium lists of this society are now ready for the James' Hall, Red Bank, N. J., on Wednesday and Thursday, October 28 and 29, 1914. The exhibition committee anticipates a good show and they would like a large entry, especially from outside of our immediate vicinity. Entries must be made and premium lists can be had by writing to Secretary H. A. Kettel, Fair Haven, N. at least four (4) days in advance of the show. All exhibits from a distance should be addressed to Secretary H. A. Kettel, Red Bank, N. J., care St. James' Hall, and they will receive prompt and careful attention. PHILIP BONNER, Cor. Sec.

#### NEW BEDFORD HORTICULTURAL SOCIETY.

The eleventh annual dahlia show of the New Bedford Horticultural Society held in Library Hall on September 23 and 24, while not as large as usual, certainly proved a very pleasing affair. New Bedford had one of the most erratic seasons within the memory of man, and dahlias simply sulked with the result that amateur displays were conspicuous by their absence, leaving the burden on a few large growers. The principal prize (a cup offered by the Executive Committee) was sharply contested for, and the exhibits in this class formed the principal beauty of the show. This cup, offered for the best display of dahlias arranged for effect with any foliage was captured by Arthur E. Griffin, superintendent of the Galen Stone place at East Marion, with a very tasty display. W. D. Hathaway came

very tasty display. Which third,
Among the amateurs P. A. Nolet won most of the prizes. WM. F. TURNER.

#### SHORT HILLS GARDEN CLUB.

The Dahlia Show of the Short Hills Garden Club, held at Short Hills, N. J., on October 2 and 3, was pronounced a decided success. Many visitors from Princeton, Trenton, Philadelphia, Tuxedo Park, Bernardsville, Long Island, Staten Island and other places viewed the exhibit which consisted mainly of dahlias grown in the gardens of the members of the Short Hils Club.

The blooms were displayed with large stems and foliage, three to the vase, and the points of judging were the same as those ased in judging roses according to the American Rose Society's schedule. The prizes were awarded as follows:

Singles—First, Mrs. C. H. Stout; honorable mention, Mrs. G. W. Campbell and Mrs. J. A. Stewart, Jr.

Seedlings--Mrs. E. B. Renwick.

Decorative—First, Mrs. W. K. Wallbridge; honorable mention, Mrs. J. A. Stewart, Jr., and Mrs. C. H. Stout.

Cactus - First, Mrs. E. B. Renwick; honorable mention, Mrs. Dean Emery and Mrs. J. A. Stewart, Jr.

Peony First, Mrs. J. A. Stewart, Jr.; honorable mention, Mrs. E. B. Renwick.

Table Decorations-First, Mrs. F. Rhodes.

# **BOBBINK & ATKINS**

### WORLD'S CHOICEST NURSERY AND GREENHOUSE PRODUCTS

AUTUMN PLANTING.

EVERGREENS, CONIFERS AND PINES,—We have more than 75 acres planted with attractive EVERGREENS. Our collection is conceded to be the most complete and magnificent ever assembled in America. The varieties compressing same have been theroughly tested and proved hardy. Our plants are dug with a ball of earth and burling periors to shapang. Before purchasing, those interested should not fail to inspect our collection.

THE FOLLOWING PLANTS FOR OUTDOOR, PLANTING, INTERIOR AND EXTERIOR DECORATIONS ARE AMONG OUR SPECIALTIES.

DECIDUOUS TREES AND SHRUBS.—We have an enormous cellection in all varieties and

RHODODENDRONS.—We have many thousands of acclimated plants in hardy English and American varieties.

American varieties.

TRAINED, DWARF AND ORDINARY FRUIT TREES AND SMALL FRUITS.—We grow these for all kinds of Pruit Gardens and Orchards.

BOXWOOD.—We grow thousands of plants in many shapes and sizes Everybody loves the rich green color and delicate aroma of old-fashioned Boxwood.

ROSES.—We have several hundred thousand Rose plants for fall sales.

HEDGE PLANTS.—We grow a quantity of California Privet, Berberis and other Hedge Plants.

di Bad addibbo ili a di Libidi Billabilada del

HARDY OLD - FASHIONED FLOWERS.—We have thousands of rare, new and old-fashioned of rare, new and old-fashioned kinds, including Peonies and Iris.

HARDY TRAILING AND CLIMBING VINES. — We have them for every place and purpose.

AUTUMN BULBS AND ROOTS. We grow and import quantities of bulbs and roots from all parts of the world.

PLANT TUBS, WINDOW BOXES, ENGLISH GARDEN FURNITURE AND RUSTIC WORK. — We manufacture all shapes and sizes.

OUR NEW HYBRID GIANT FLOWERING MARSHMALLOW, -Everybody should be interested in his hardy new old fashioned flower.
OUR ILLUSTRATED GENERAL CATALOG No. 45 and AUTUMN
BULB CATALOG describes our product; mailed upon request.

"WE PLAN AND PLANT GROUNDS AND GARDENS EVERYWHERE."

NURSERYMEN, FLORISTS AND PLANTERS RUTHERFORD, N. J. Sagonaminonomina de estados de comencia de en el contra de estados de estados de estados de entra el contra de

# Boddington's **Quality Bulbs**

Our French and Holland bulbs are now in the house,—and their quality was never

**OUR** 

# FALL GARDEN GUIDE

IS NOW BEING DISTRIBUTED

If you did not get your copy, drop us a postal card. When in the city, call on us.

# **Arthur T. Boddington**

**New York** West 14th Street

Telephone 2606 Chelsea

# MR. GARDENER:

# JUST CONSIDER A MOMENT!

Sick Trees Never Cured Themselves Yet!

# AND THEY NEVER WILL!

Then Why Wait Longer? Time Is Precious.

CALL US IN

WE HAVE the KNOWLEDGE, the EXPERI-ENCE, the MEN, the TOOLS.

## JOHN T. WITHERS, Inc.

Landscape Architect and Forester

1 Montgomery St.

Jersey City, N. J.

# BON ARBOR

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection. prove it.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55

5 lb. package making 150 gallons, exp. extra 1.80

25 lb. package making 750 gallons, exp. extra 6.25

50 lb. package making 1,500 gallons, extra 12.50 exp. extr 100 lb. package making 3,000 gallons,

exp. extra 20.00 Barrels from 250 to 300 lbs., 18c. per lb.

1111

RADIX WORM ERADICATOR removes worms instantly from y Flower Pots, etc. from your Tennis Courts, Golf Greens,

2 gallons, making 200 gallons, \$2.00 per gallon. 11/2 gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

## BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.

# AGRICULTURAL EXPERIMENT STATIONS

are favoring 40% Nicotine solutions in their recommendations for fumigating and spraying. To meet the demand this has created we now offer

# "40% NICOTINE"

\$13.00 Gallon — \$3.75 Quart — \$2.00 Pint Compare these prices with what you now pay.

## NIKOTIANA

A 12% Nicotine solution properly diluted for vaporizing and fumigating. \$4.50 Gallon—\$1.50 Quart.



The Recognized Standard Insecticide for green, black, white fly, red spider, thrips, mealy bug and soft scale. Can be used on tender plants.

\$2.50 Gallon—\$1.00 Quart

## **FUNGINE**

For mildew, rust and other blights. It is perfectly safe to apply to fruits and vegetables, as it is non-poisonous. An infallible remedy for rose mildew, carnation and chrysanthemum rust.

\$2.00 Gallon—75c. Quart

## **VERMINE**

For eel, cut and wire worms working in the soil. It can be applied to all vegetation. \$3.00 Gal.—\$1.00 Qt.

## **SCALINE**

For San Jose, Oyster Shell and all scale on trees and hardy stock. An effective remedy for red spider on evergreens. \$1.50 Gallon—75c. Quart

If you cannot obtain our products from your local dealer, send us your order with remittance and we will ship immediately through our nearest agent

# Aphine Manufacturing Co.

Manufacturers of Agricultural Chemicals
MADISON, N. J.

# Thorburn's BULBS

To the gardener:

YOU, who depend for your profit upon the reliability of seeds and bulbs, feel rightly that a bargain is not of the first importance.

Yet we often have an overstock which we are able to supply below the market, and would be very glad to send you particulars on request.

If you have not received a copy of our 1914 Bulb Catalog, send for it. We printed one especially for you. It contains a wealth of information which will be of use to you.

A large proportion of our business is with those who "raise for profit." Think this over, and let us hear from you.

# J. M. THORBURN & CO. Established 1802

53 Barclay Street, New York



# THE MACNIFF HORTICULTURAL CO.

56 Vesey Street, New York

We are receiving very large shipments of

# BULBS and NURSERY STOCK from HOLLAND,

also large consignments of

# PALMS, FERNS and GREEN-**HOUSE POTTED PLANTS**

from well-known growers. Kindly let us know your wants.

SEND FOR CATALOGUE

# LATEST WAR **NEWS**

Owing to the war we do not expect to receive any new crop of LILY OF THE VALLEY pips from Germany this Fall.

We have an extra fine lot of COLD STORAGE PIPS on hand and can offer them now for future delivery.

# Cold Storage Dresden Pips

250 for \$7.00; 500 for \$13.00; 1000 for \$25.00.

Order early before they are all gone.

W. E. MARSHALL & CO.

SEEDS -BULBS-PLANTS

166 West 23rd Street, New York

## An Economical Solution of Garage and Greenhouse

From a there is because a garage way not the at the same time to have as a limiting greathese. The are both a fault facts your greathese is the taske be garage at tortable to work must be to the date of controller to work must be to garage indicate a controller. While the greathese is a 1-th garage are considered to the very work of a way great to sold the very work of a way great to sold the very work of a bording worker to this greathese controllers.

Hitchings and

General Offices and Factory-ELIZABETH, N.

New York 1170 Broadway

Beston 49 Federal St.

<del>Winderder die Meine Mei</del>

侧巡

# GIANT DARWIN TULIPS THE TULIP FOR EVERYBODY'S GARDEN

Whether you plan to have Tulips in flower during May for cutting; grouped in the herbaceous or shrubbery border or in formal beds, no Tulips will provide such a wonderful display or give you any better color scheme.

Our stock is complete with the finest varieties in commerce.

ARIADNE. Light recombines should scarlet, with blue base factor lower of great above in terminating of terms Height, 28 inch s  $\sim 10.7$  ,  $75\circ$  , 10.0 ,  $85\circ$  ,  $1.00\circ$  ,  $84\circ$ 

ASCANIA. Brill ret lear marke, gette a self-olor (edge, silvers line, base white, a speedful variety for any position in the garden Height, 25 in less (167), 81.50, 100, 810.

Height, 25 to 16s. 167, 81.50, 100, \$10.

BARONNE DE LA TONNAYE. A long and beautif flower clear carmine-rose at the midrib, toning off to soft pink at the edges; base white, fired blue, Evellett for early March foreign in just as fine for oxide micks, when it keeps up a sheddel show for a long time. Height 26 upon 10 - 40c 100, 83 1 000, 827.

CARMINEA, Right clear if inson rose, a charming variety for any position of those for the large size splend of for eath 2 Hought, 21 means 10 g, fee, 100, \$3, 1,000, 828.

CLARA BUTT, Clear ink flushed salmon-rose, good sized flower of viry hords at easier.

the flower of v ry hards of some flower of v ry hards of some color. Explisitely beautiful out-of-doors, and one of the best for jets of not tereof to easily. He gas 12 inches 10 z. 50c s. 100 - 8450, v. 000 - \$30.

not ferced featening. He 2nd 11 inches | Dec. 566 + 100 - 8450, 1,000 | \$250. |

DREAM, Large Lowers | partect in feat, of the strong set ms. color foew like and manye, with charetruple interior. Hardson in conduction the tark haven'ter and violet-color d varieties. Height, 24 miles | Doz. doc. 100, 8425; 1,060, \$40. |

ELECTRA. R sv 11a broadly margifed graysh white, meaning

ELECTRA. R sv 11 o broadly harg (cd graves) white, me, our sized flower, which contrasts well w (the dark r shadd T Jips Height, 26 inches, Doz., 75c, 10°, 85.56; 1,000, 852.

ERGUSTE. Soft violet with a slight silvers flish; flower medica size. One of the lest Parwas size. One of the best Parwins for forcing, keeping its refined color splendidly. Heisht, 26 inches. Doz., 80c.; 100, \$6; 1,000,

EUROPE. -Deep, flery crimson, white base. There is no more beautiful sight than a bed of this scancer signt than a bed of this variety. Stems are of medium length, the flowers here and erect, with white base contrastite well when the flower is nelly open. Height, 22 inches, Doz., 60c.; 100, \$4: 1,000, \$3S.

Goe.; 100, \$4; 1,000, \$38.

FARNCOMBE SANDERS. Brith net dark resy red; flow is regenerate no horz, stiff steris case shalled white A 2.71 and 2 ling flowered varieties. Conceded to be the best in its color. Height, 24 inches 10.2, 75.; 100 s 1,000 \$45.

FLAMINGO. An even tone of nore shill junk, flower painted and refined form. Of unsurpassed beauty for border planting. Height, 28 inches 10.2, 81.25; 10.80, 1,000, 885.

GLOW. Bright vermillousscarlet, white base, with blue markings; good-sized flowers of distinct shape. An excellent scarlet for bedding and foreign. Height, 20 in 18.12 for 10.11 s. 175, 1,000 887.

GRAND MAITRE. A direct tapk tools to the second base with best sheen, large flower or relative tage. Height, 24 in be 10.2, stiff sterial varieties and foreign for contactors. Height, 27 in be 10.2, stiff sterial varieties and contactors.

GRETCHEN (Margaret) .- Pale rose ground, faintly flushed white CALCINE (Margaret).—Frame rose ground, faintly husbed white center white, marked blue very colonic colon flower glob are 1 shape, borne on a strong stee Stler a fer torong H glt 22 inches, Doz, 30c; 10c, 81, 10c, 81, 10c, 81, HICHCOCK, Rub, gle set very d. r. with the base on, at tractive border variety. Height, 10 inches Dog, 68 10c, 84; 10cc, 84;

tractive be 1,000, \$38.

ISIS. -Pierv erims a scattlet with the base; very size if very striking beauty. The most brilliant of is color Height 26 inches Doz., Soc.; 100, \$6; 1,000, 855

JULES VINOT (Princes Elizabeth), Beautiful (b) rose petk with a white base. A magnificent, large-sized Darwin of Sturdy habit, Height, 26 inches, Doz., \$1: 100, \$7: 1,000, \$65.

KING HAROLD.—Intense ruby-crimson, center rich black; very tall and of fine form; new and stately variety; very distinct. Height, 24 inches. Dez., 50c, 100, \$1:50, 1,000, \$72.

LANTERN.—Pale silvery lilac, passing into white, inside clear lilac, with white base; medium-sized flower of beautiful form, a light violet counterpart to Gretchen. Height, 20 mehes. Doz., 40c.; 100, \$3;

LA TRISTESSE, -100 p. slaty blue, with white base, very distinct in color; medium-sized nower. Height, 26 melos. Doz., 80c.; 100, \$6;

LA TULIPE NOIRE (The Black Tulip). Deep maroon-black, having a velvety sheen in the sublisht; large flower of fine form. Height, 25 inches Doz 82,25, 100, 815.

MADAME KRELAGE.—Bright filac rose, margined pale silvery rose;

MADAME RELIAGE.—Bright that rose, margined pate sirvery rose; flower long and of excellent form. Excellent for borders or pots. Pergli 28 inches | D.Z. co., 10%, 84; 1,000 8.8 | MASSACHUSETTS.—Beautiful pink, with white center; large flowers of beautiful color and let | 16 2ht 24 inches. Doz. (50 : 100, \$4; 1000, 8.8

MAY QUEEN. Pare 1 oscionier adicately marked blue, very long, large flower. Excellent for borders or among skrubs. Height, 26 pd. 1887, 1888, 1898, 1899, 18

MEDUSA. Orange - scarlet, finished salvon with blue base, the color is of great brilliance in the or inches. Is open flower Height, 24 es. Doz., 60c; 100, \$4.50;

MRS. POTTER PALMER. -MRS. POTTER FALMEN.

Puttlish violet, base white a large flower; very attractors for lorder planting, Height, 28 inches, Doz., 60c.; 100, 84.50; 1.000, \$40.

NAUTICAS .- Dark rose, center NAUTICAS.—Dark rose, center clear violet, shaded bronze; large flower. Excellent for outdoors and early or late forcing. Height, a0 inches. Doz., 50c.; 100, \$3.50; 1,00, \$322 NORA WARE. — Silver-lilac, quite a uniform color when grown itsil it pots, recommend od for forcing. Poz., 60c.; 100, \$4 1,000, \$48.

0UIDA.—Bright crimson-sear-

OUIDA.—Bright crimson-scan-let enter-blue A variety that is not easily benten for its keep-ing qualifies. Helght, 26 inches, Doz., 50c; 100, \$3.50; 1,000, \$32. PAINTED LADY.—Cream-whote with a faint tinge of heliotrope when open; good-sized flower resembling somewhat a victible of the best varieties for outside or forcing, Doz., 60c; 100, \$1; 1,000, \$38. PALISSA.—Rich bright volet.

PHILIPPE DE COMMINES. A grait flower of dark, polished na control of the last 
SUZON. Corresponding to some smaller to blush at the margin with white base, delicately marked blue. A very much admired variety in the fields; of strong, stately habit. Height, 25 inches. Doz., 80c.; 10c. 86; 1,0co., 875.

THE SULTAN. -Rich marcon-black with blue base; small flower of fine form: a good Tulip among the darker sorts to plant with yellow Cottage Tulips. Excellent for forcing. Height, 25 inches. Doz., 40c.; 10s. 82.76; 1,000, 824

10c. 82.75; 1,000, 824
WHITE QUEEN La Candeur). Almost a pure white when mature;
faintly blush-rose when first open. Excellent for borders and pots.
H ght, "I inclose, 102, 600; 100, 34; 1,000, 828
WILLIAM COPELAND,—Uniform illac rose when grown in pots. A

most captivating color when grown inside. One of the best as well a easiest forcers. Height, 24 inches. Doz., 75c.; 100, \$5.50; 1,000, \$52.

Our Catalog containing list of Best Novelties as well as standard varieties of Bulbs for Fall Planting free on request.



30-32 BARCLAY ST. **NEW YORK** 

# 

ON THE PARTY OF TH



# Prize Cups and Trophies in Sterling and Silver Plate

XIHEN you are buying trophics or prize cups for Flower Shows or other events, you should go where you will find greatest selection.

In the International Store we have from which you may choose the products of the eleven great factories of the International Silver Company.

Sterling and silver plated cups and trophies in a tremendous variety of unique patterns, ranging from large, specially designed trophies for important events to small and inexpensive cups.

# INTERNATIONAL SILVER COMPANY

SUCCEEDING The MERIDEN Co. ESTABLISHED

49-51 W. 34th St., Through to 68-70 W. 35th St., New York



# Two Graperies Side By Side

E built the glass enclosed one. Built it with all the superiority of construction and nicety of finish that a firm with half

a century's experience, like ours, can. We said "like ours"; which statement might lead you to infer that there actually were other greenhouse building concerns half a century old. But there is not another such concern.

Half a century of building rolls up a lot of experience. It's just about enough, however, to put us in a position to meet building problems and conditions as no other concern can. Which statement is not boastful, but a plain statement of a plain fact that no one can contradict.

If you are thinking of building and ready to talk it over, say when and where and we'll be there.

#### SALES OFFICES:

New York, 42d St. Bldg. Chicago, Rookery Bldg. Philadelphia, Cleveland, Franklin Bank Bldg, Swetland Bldg.

Rochester, Granite Bldg. Toronto-12 Queen Street, East,

Jord & Burnham 6.

FACTORIES

Irvington, N. Y.

# Boddington's **Quality Bulbs**

Our French and Holland bulbs are now in the house, and their quality was never

OUR

# FALL GARDEN GUIDE

IS NOW BEING DISTRIBUTED

li vou did not get vour copy, drop us a postal card. When in the city, call on us.

# **Arthur T. Boddington**

West 14th Street **New York** 

Telephone 2606 Chelsea

# **BOBBINK & ATKINS**

tour and are the fine manager.

AND GREENHOUSE PRODUCTS

EVERGREENS, CONIFERS AND PINES. We have more than 75 at a parted with afth, the LIVERGREENS. Our offliction is consisted to a the most corresponding magnitude to correspond to the following the state of the provide the second of the provide the second of the second of the provide that the second of the provide the sample of the second of the provide the sample of 
THE FOLLOWING PLANTS FOR OUTDOOR PLANTING, INTERIOR AND EXTERIOR DECORATIONS ARE AMONG OUR SPECIALTIES. HEDGE PLANTS. We grow a 120 quantity | Cultioning lively, Berbars and other fledge Plants.

DECIDUOUS TREES AND SHRUBS. We have at crotace seale face in will variefie at

RHODODENDRONS. We lase many thousands of accharted plots in Lary Tuglish and Anordon varieties.

HARDY OLD - FASHIONED FLOWERS. W. Lave thrusand of taskoned as also meluding Pointes and Ires.

TRAINED, DWARF AND ORDINARY FRUIT TREES AND SMALL FRUITS. We grow these for all kinds at light Gordens and Orchards.

ROSES. We have several hundred thousand ROSE PLANTS that will bloom the ear.

AUTUMN BULBS AND ROOTS. We grow and import quantities of Bulbs and Roots from all parts of the World aroun of old fashioned Boxwood.
OUR RUTHERFORD LAWN
GRASS SIED has given satistotal everywher.
PLANT TUBS, WINDOW
BOXES, ENGLISH GARDEN
FURNITURE AND RUSTIC
WORK.—We manufacture all
sources and sizes.

Plants,
HARDY TRAILING AND
CLIMBING VINES, We have
Lee, for every place and pur

atta plants for conservatories, atta or and Exterior decorations.

BOXWOOD. We grow thoused of plants in many shapes in 8.2.8. Everybody loves the green color and delicate aroma of old fashioned Boxwood.

BAY TREES AND PALMS, and

OUR NEW HYBRID GIANT FLOWERING MARSHMALLOW.— Everybody should be interested in this hardy toward flower. It is perfectly hardy and will grow everywhere

OUR ILLUSTRATED GENERAL CATALOG NO. 45 AND AUTUMN BULB CATALOG describe our products; mailed upon request.

"We Plan and Plant Grounds and Gardens Everywhere."

We invite parties who intend to lay out and plant their grounds to visit our Nurseries and inspect our immense stock.

NURSERYMEN, FLORISTS AND PLANTERS RUTHERFORD, N. J.

# 1915 Novelties

Our collection was never better in

# Chrysanthemums Roses **Carnations**

We are prepared to quote early next year delivery on most of our novelties now.

Our 1915 Catalogue will be ready for distribution shortly. If you are not already on our mailing list to receive a copy, send us vour name.

CHAS. H. TOTTY Madison, N. J.

# ANNUAL CONVENTION

National Association of Gardeners Philadelphia, Pa.

Wednesday, Thursday, Dec. 9th, 10th

Exhibits of novelties in plants and cut flowers are invited

Will You Attend?

# Highest Grade Bulbs

John Scheepers & Co., Inc. 2 Stone Street New York

## ORDER NOW

Large Clumps of Eremurus.

Speciosum and Fancy Lilies.

Nerines.

Our Famous "Excellenta" Valley Pips.

Catalogues Ready for Distribution

# The House of Burpee

Is recognized throughout America as head quarters for Extraordinary Pedigree Strains of Seeds. We are specialists in Seeds. Our entire time is devoted to producing and distributing Seeds—Seeds Only, and Only Seeds of the Best Quality. Our reputation for efficient service is built about the Burpee Idea of Quality Only, and "to give rather than to get all that is possible."

# Burpee's Seeds Grow

Thirty-eight years of continued selling Seeds of Burpee Quality has proved our incontestable right to this truthful slogan. Planters whether gardening for pleasure or profit soon learn that the best is the cheapest. Write for both our Annual and our Blue List. A postcard will bring both.

## W. ATLEE BURPEE & CO.

Burpee Bldgs.

Philadelphia, Pa.

## Members of The National Association of Gardeners

attending the Annual Meeting of the Association in Philadelphia, December, 8 and 9

# YOU ARE INVITED

during your stay in our city, to visit

# Andorra Nurseries

Our representatives will be at the regular meetings and will arrange to bring you out to the Nurseries by motor at your convenience. The trip from Philadelphia to Chestnut Hill is along the River Drive through Fairmount Park, then on a portion of the famous Wissahickon Drive to the Lincoln Drive, and through the residential sections of Germantown, St. Martins and Chestnut Hill, passing many of Philadelphia's finest homes and grounds.

At Andorra our eleven hundred acres of nursery lands lie on the hills from the end of Fairmount Park west to the Schuylkill River, and present an unusual nursery arrangement, as the hills and valleys present unique planting problems.

Wm. Warner Harper, Proprietor
See our Representative. Arrange to Come

. Secilare, Colorada S

# LATEST WAR NEWS

Owing to the war we do not expect to receive any new crop of LILY OF THE VALLEY pips from Germany this Fall.

We have an extra fine lot of COLD STORAGE PIPS on hand and can offer them now for future delivery.

# Cold Storage Dresden Pips

250 for \$7.00; 500 for \$13.00; 1000 for \$25.00.

Order early before they are all gone.

# W. E. MARSHALL & CO.

SEEDS BULBS—PLANTS

166 West 23rd Street, New York

🌲 . Geografia de Perdenante de Compositore de Societa de La Compositore de La Grandia de La Grandia de La Compositore de La Grandia de La Gra

# THE MACNIFF HORTICULTURAL CO.

型 a tradition de la company d

56 Vesey Street, New York

We are receiving very large shipments of

# BULBS and NURSERY STOCK from HOLLAND,

also large consignments of

# PALMS, FERNS and GREEN-HOUSE POTTED PLANTS

from well-known growers. Kindly let us know your wants.

SEND FOR CATALOGUE

# BULBS BULBS BURNETT BROS.

NARCISSUS VON SION, DOUBLE NOSE

- " VON SION, SINGLE NOSE
- GOLDEN SPUR
- " SIR WATKIN
- " ORANGE PHOENIX
- " POETICUS, "PHEASANTS EYE"
  - POETICUS ORNATUS

FREESIA PURITY AND REFRACTA ALBA
TULIPS, SINGLE AND DOUBLE NAMED
VARIETIES

TULIPS, DARWINS, NAMED VARIETIES HYACINTHS, "EXHIBITION," NAMED VARIETIES

Our bulbs are exceptionally large and our prices are exceptionally low. Write for prices before ordering.

# BURNETT BROS.

SEEDSMEN

98 Chambers St. New York City
TELEPHONE 6138 BARCLAY

E L'ANTION DE LA COMMENTA DE L'ANTIONNE LE RECONSTRUCTION DE L'ANTIONNE LE LONG DE LA COMMENTA DE L'ANTIONNE LE LA COMMENTA DE L'ANTIONNE L'ANTIONN

# An Invitation

to all

# Gardeners and Superintendents



YOU are cordially invited, while attending the Convention of the National Association of Gaideners, to visit our establishment at 518 Market St., Philadelphia, also our Nurseries at Andalusia, Pa. We will be glad if you will make our establishment your headquarters

PHILADELPHIA'S LEADING SEED HOUSE,

HENRY F. MICHELL CO., 518 Market St., Phila. (Philadelphia's Main Business Thoroughfare)

# Seeds with a Lineage

Lovers of gardens and grounds should know that at Raynes Park, London, England, Messrs. James Carter & Co. have the finest and most complete testing and trial grounds in the world.

Their equipment and the unique methods employed guarantee the quality of their seeds. For generations they have been cultivating, selecting and perfecting until Carter's Tested Seeds have reached the highest percentage of purity and germination.

We import these seeds direct from Raynes Park and carry a complete stock at our Boston warehouses.

Write for copy of 1915 Catalogue. Ready December 1st.

Carters Tested Seeds, Inc.

> 111 Chamber of Commerce Bldg., Boston, Mass Canadian Branch: Toronto, Ontario.

# The Highway to Perennials Leads Straight to the PALISADES NURSERIES

There you will find all kinds, and you can take your pick from the best that grow. Perennials add a feeling of permanency to the home surroundings. They change their plumage, but not their face, and keep reflecting the seasons all the year around.

FALL PLANTING-To grow most hardy perennials and old-fashioned flowers successfully, plant in November, like planting Spring-flowering bulbs. They then root during Fall and Winter, and are ready for Spring and Summer blooming.

No grounds are really gardened without a big showing in perennials. We are head-quarters for perennials and assure the widest latitude in choice as well as the most cour-teous promptitude in correspondence and service. Our motto "Maximum Quality at Minimum Cost."

Write R. W. CLUCAS, Manager, Palisades Nurseries

Sparkill, New York

# SEEDS for the finest forcing vegeta-

Send for

our catalogue if you do not know them. Our new catalogue will be ready about December 15th. sure to send your name for it.

## WEEBER & DON

Seed Merchants and Growers

114 Chambers Street

**NEW YORK** 

# Julius Roehrs Company Nurserymen and Florists

Headquarters for Orchids, Palms, Stove and Greenhouse Plants, Bay Trees and Box Trees, Laurus Cerasus, Aucubas, Cyclamen, Begonia Lorraine and Cincinnati, Evergreens, Deciduous Trees and Shrubs.

RUTHERFORD, NEW JERSEY

# COMPETENT GARDENERS

The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

q Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

### PETER HENDERSON & CO.

Seedsmen and Florists

and the state of t

35 and 37 Cortlandt St.

**NEW YORK CITY** 

## Visit the Meehan Nurseries

while you are in Philadelphia. They are easily reached by any of these routes:

PHILA, & READING R. R. Stenton Station (right on the grounds). PENNA. R. R. Carpenter Station (twenty minutes' walk)

P. R. T. CO. -Trolleys narked "Pelnam," "Mount Airy" or "Chestnut Hill" eight minutes walk cast on Sloom Street (First north of Pelnam Car barn, 6700 north on Germantown Avenue).

MOTOR—From West Phila and Main Line Points: Up Wissahicken Linve and Lincoln Drive to Pelham Road or Carpenter St., East to Chew Street. (Nurseries 6700 Chew)

MOTOR-From North-Eastern sections: South on Stenton Ave. to Vernon Road to Stenton Station

MOTOR From Eastern sections: Over Washington Iane or Mount Airy Ave. to Stenton Ave., Ver-non Road and Stenton Station

You are welcome. May we look for you?

THOMAS MEEHAN & SONS

Germantown, Philadelphia, Pa.

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

# KENNEDY & HUNTER SEEDSMEN

Lily of the Valley—Hardy Lilies—Spiraea Just arrived in fine condition

Write for list of surplus bulbs

156 West 34th Street One block from New York

"ONLY THE BEST"

and sales and a second community of the second second and sales and second and second 
# California Privet

and Berberis Thunbergii

Grown as Specialties in large quantities

Will have the largest and best stock to offer in the Fall that I have ever grown. Get my prices before you place your order.

C. A. BENNETT

Robbinsville Nurseries 

Robbinsville, N. J.

# Chrysanthemums for Exhibition

#### NOVELTIES

SILVER KING (Smith A large fine reflexed white, \$1 each;

MANKATO (Smith) In color form and size similar to R ginald Vallis, but having a perfect stem. \$1 each, 810 per dozen.

#### GENERAL PURPOSE VARIETIES

**EARLY FIRST** (Damer) A fine white seedling of Golden Glow, maturing the first week in October,  $25\sigma_c$  each, 82.50Glow, maturing the first per doz n. \$20 per 100.

MT. GREENWOOD (Johnson) A fine pink seedling of Duckham 25c, each; \$2.50 per dozen; \$20 per 100

GOLDEN QUEEN (Smith)  $\Lambda$  new early yellow, coming to matmity October first 75c each; \$7.50 per doz n

MARIGOID (Smith) Mid-season Yellow, Large enough for cylindrien, Good for the early shows, 75c each, 875) per dozen.

CRYSTAL GEM (Smith)—A reflexed early white, coming to maturity about October 10th, 75c, each; \$7.50 per dozen.

MODELLA (Smith)—Pine bronze. Medium sized bloom. Reflexed in type. 75c, each; \$7.50 per dozen.

We can ofter early delivery or the best of last season's Novelties.

JAMES FRAZER ODESSA

DAILY MAIL NERISSA

FLAMINGO

 $500 - \mathrm{e}\,\mathrm{ach}\,\mathrm{f}_1/85$  per dozen, 8.05 per 100,

Our general list of Chrysantheriums includes the best exhibition varieties, and all the general purpose varieties worth

#### **POMPONS**

PEACE Our new blish white won the Silver Cup for the best seedling at Indiatajobs (30c, each, 83 per dozen, HARVEST MOON Our new vellow is another Johnson seed-ling that will maintain the reputation of this fine lot of Pompon Seedlings (30c each) 83 per dozen.

GOLDEN HARVEST, GOLDEN CLIMAX, GOLDEN WEST and WESTERN BEAUTY are the 1914 Scedlings raised by Johnson, which we descend and which have raised the standard of quality in Pouron Chrysarthennums. These varieties for 1915—15e each; \$1.25 p.r. dozen; \$7.50 per 100.

A.N.PIERSON INC.

# A Sanitary Floor of Merit

# WHY LEADING ARCHITECTS RECOMMEND THAT YOU USE IT

1st-It is non-porous plastic flooring containing no decomposing matter.

2d —It can be laid over old floors of wood, cement or iron.

3d —It can be laid any thickness desired.

4th—It is thoroughly fire-proof and water-proof.

5th—It is pleasant to walk upon, and although hard and smooth it is not slippery and has the touch of a wood floor.

6th—It is ready for use in forty-eight hours after being laid.

7th—It is usually laid with a cove base from three to eight inches in height and being water-proof and without seams or openings can be flooded with hose and rendered perfectly clean in a few moments without injury to anything below or under it.

Circular and Samples upon Request

# NEW YORK SANITARY FLOOR

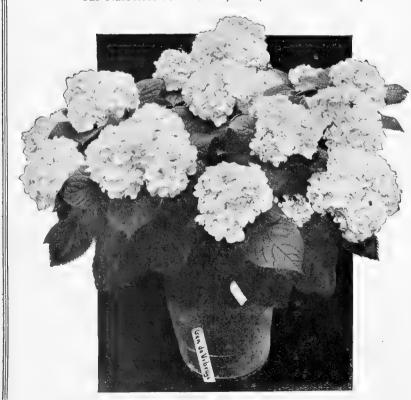
Chester, N. Y.

286 Fifth Avenue, New York City

erit entittita Altintititit i tot-	The	ContentsNovember,	1914
------------------------------------	-----	-------------------	------

Belgium's Contribution to Pomology		American Association of Park Superintendents'	
View of New York's Fall Flower Show .	242	Notes	5
Bulbs in the Ornamental Garden, Maurice		Park Department Personals 25	5
Field	243	Wm, H. Coldwell Presented with Loving Cup 25	
View of Philadelphia's Flower Show	243		
Garden Scene, Madison, N. J., Flower Show	246	Park Institute of New England 25	O
Chrysanthemums for Exhibition By Wm. Vert	247	The Public Parks Recreation Systems of Min-	
View of Department of Agriculture's Exhibition	247	neapolis, Minn	7
The Gardener and His Profession		Prizes Offered for Photos of Largest Trees . 25	9
By W. N. Craig	248	Management of National Rose Garden 25	9
Work for the Month of November		The Art of Naming Plants 25	9
By Henry Gibson	250	Horticultural Features at Panama-Pacific	
Opportunities to Experiment with Foreign Plants	251	Exposition	0
Timely Hints	251	A New Book on Sweet Pea Culture 26	0
Need for Shade Tree Exports	251	Absorption of Salts by Plants 26	0
Proposed Joint Exhibition at Newport	251	Queries and Answers 26	0
Demanding Conservation of Their Trees .	251	Of Interest to All 26	1
Report of S. A. F. School Garden Committee	251	National Associations 26	2
Editorials	252	Local Societies 26	2
National Associations of Gardeners' Notes .	253	Gardeners' Diary 26	3
Among the Gardeners	253	Annual Fall Flower Shows 263-26	8
Royal Horticultural Society	254	Tarrytown Horticultural Society 26	8
British Gardeners' Association	254	New Jersey Floricultural Society 26	8
Chas. H. Totty Much Improved	254	Oyster Bay, N. Y., Horticultural Society . 26	8

ARDENERS attending the Convention of the National Association of Gardeners are cordially invited to visit our Nurseries at Riverton, N. J., while in Philadelphia



# FRENCH Hydrangeas

We offer in splendid shape for early forcing the follow-ing varieties of French Hydrangeas, elegant stock, in 6 inch pots.

AVALANCHE-Large corymbs of pure white flowers;

AVALANCHE—Large corymns of pire white nowers; very free flowering.

BOUQUET ROSE Large trusses of well formed flowers; rosy amber, turning to bright pink.

E. G. HILL Trusses of immense size of a most pleasing shade of pink

GENERAL DE VIBRAYE—Very large heads of bright rose, a splendid forcing variety

LA LORRAINE—Very large flowers; pale rose, turning to bright pink.

LA LORRAINE—Very large flowers; pale rose, turning to bright pink.

MME. MAURICE HAMAR—Large, delicate flesh-rose color; a pleasing shade.

MLLE. AGNES BARILLET—A splendid large white.

MME. EMILE MOUILLERE—One of the very best; very large flowers, frequently over 2 inches in diameter, of the purest white, with rosy-carmine eye.

MONT ROSE—Immense panieles of a clear flesh-rose.

RONSARD—Very large individual flowers and trusses of a beautiful rose.

SOUVENIR DE MME. CHAUTARD—One of the pretiest; robust habit, medium-sized corymbs of bright rose-colored flowers.

VIEUW CHATEAU—Immense trusses of white flowers which as they mature become suffused with a delicate rosy tint.

Good 6 inch pots, 50 cts, each; \$5.00 per doz.

Good 6 inch pots, 50 cts. each; \$5.00 per doz., \$35.00 per 100.

For all seasonable Plants, Bulbs, Seeds and Horticultural Supplies, consult our Autumn Catalogue, which will be mailed to all applicants.

# HENRY A. DREER

714-716 Chestnut Street PHILADELPHIA, PA.

# GARDENERS' CHRONICLE

# OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XVIII.

NOVEMBER, 1914.

No. 7.

# Belgium's Contributions to Pomology

At the present time, when the sufferings of Belgium are attracting the sympathy of the civilized world, it is impossible for horticulturists to forget the debt they owe to that country. The gardens of the whole world have profited much from the natural aptitude of the Belgians for horticulture, and their sustained interest in pomology. The names of towns and villages, now, alas! of unhappy fame, cannot be read by gardeners without calling up memories of this or that fruit with which they are associated. It is, therefore, of interest to recount some of the main facts of Belgian pomological history, in order that we may realize how much is due to this small country for the fruits that have so greatly enriched the gardens of the world.

It may be presumed that the fertile soil of the country has for many hundreds of years been favorable to the culture of fruits, as it is mentioned by Roman authors as a land famous for its apples. Before the eighteenth century France was the unchallenged leader in the production of new fruits, but the varieties which were introduced were doubtless all chance seedlings, as the methods of cross-fertilization were then unknown. In the early part of that century the sexuality of plants was beginning to be widely known and taught at the universities, and it is almost certain that this knowledge was first utilized as a practical means of producing new fruits in Belgium by Nicholas Hardenpont. This remarkable man was born at Mons in 1755, and received his education at the University of Louvain. After taking his degree he returned to his native town and commenced the experiments which caused him to be regarded as the Father of Pomology in Belgium. At this time the pears which were generally grown were mostly of the crisp-fleshed variety, and it is thought, with some reason, that Hardenpont sought to increase the number of those with fondant or melting flesh. Be this as it may, his results are certainly such as to confirm this opinion. His most famous seedlings are Beurré d'Hardenpont and Beurré Rance. The former is now known in England as Glou Morceau, a name which it received about 1800, and which signifies "dainty morsel." It is to be regretted that this valuable pear, now so widely known, should not retain its original name and thus keep alive the memory of its raiser. Beurré Rance is still widely grown in this country, and the name has been the subject of several stories. One of these describes a visit of some enthusiasts to the Abbé Hardenpont, who asked them to try the new pear. One of those present said it had a rancid flavor. "Rancid!" said the indignant raiser, "I will call it Beurré Rance to perpetuate and shame your bad judgment." This story, probably ben trovato, is put aside by more serious writers in favor of a derivation from the Flemish "rens," or "reinsch," signifying bitter, a flavor which under bad conditions this fruit occasionally develops. Passe Colmar,

an excellent December fruit when grown on a warm soil, is another of the famous Abbé's seedlings, and it is still grown in this country. The other fruits of Hardenpont are less known in this country. Délices d'Hardenpont, Fondant de Panisel and a few others have now lost their former popularity.

Owing to the fact that Hardenpont was not much in touch with horticultural circles, it was some time before his fruits were widely distributed, but in 1806 Noisette visited Belgium, and there saw and at once appreciated these striking novelties, and through him they were soon distributed over Europe. The interest aroused by these new fruits naturally encouraged imitators, and pears seem especially to have been the fruit which attracted their attention. In 1787 M. Capiaumont, a chemist at Mons, raised from a seed of the Calebasse Pear the variety which still bears his name. For a while it masqueraded under the name of Beurré Aurore, and by this it is described and figured in *Le Jardin Fruitier* of Decaisne. The fertility and hardiness of this fruit have led to its cultivation in many countries.

The greatest figure in Belgian pomology is undoubtedly that of J. B. Van Mons. His extraordinary labors and unfailing perseverance resulted in the production of an enormous number of new fruits, which probably no

raiser has ever equaled.

Van Mons' influence in stimulating others cannot be over-emphasized. The very fact that he set out to prove a new theory gave zest to the endeavors of his followers, and though his hypothesis is now seen to be baseless, its promulgation was of great value to Belgian pomology. His experimental garden suffered severely at the hands of the French army in its march on Antwerp, but his courage in removing what could be saved from the ruin and starting again elsewhere are worthy of the highest praise. After his death the mantle of Van Mons fell upon Alexander J. D. Bivort, a pomologist whose name will be remembered by his splendid Album de Pomologie, which contains colored figures and descriptions of the best of Van Mons' seedlings. Bivort had long been on terms of friendship with Van Mons, and he purchased all the seedlings then at Louvain and removed them to his garden at Geest St. Remy, near Jodoigne. Here the work of describing and figuring them was carried on for many years, and the results published in the Album de Pomologie, above referred to, and in the larger Annales de Pomologie Belge et Etrangère. Bivort claims attention chiefly as a systematic pomologist, and as such was a necessary complement to Van Mons.

In 1853 Bivort was obliged to leave St. Remy, and a new society, called the Société Van Mons, was formed under government auspices to continue the work. Bivort was chosen as director, and a journal was published. However, after a few years, the state subvention ceased

and the establishment was given up, and thus the original trees of Van Mons perished. The work of Bivort in preserving and recording these seedlings was of the highest importance, and assures him a high place in the pomological hierarchy.

Prominent among Belgian fruit raisers must be reckoned Major Esperen, one of Napoleon's officers. This gallant soldier saw much service before settling down to the peaceful occupation of fruit culture. Joining the army as a volunteer in 1803, he was wounded at Wagram, and promoted lieutenant on the battlefield. Afterwards he took part in the campaigns in Germany, Russia and Tuscany, retired in 1817, and devoted his time to the raising of seedlings, some of which are still in the first rank. The best known varieties of Major Esperen's raising is Josephine de Malines, which was produced in 1830, and named after his wife, Josephine Baur. Scarcely less well known is Emile d'Heyst, which first fruited in 1847. and was dedicated to Emile Berckmans, son of the wellknown pomologist of Heyst-op-den-Berg. Another pear, Elisa d'Heyst, named in honor of Madame Berckmans, has not been so widely grown. Esperen's name is happily kept in memory by the well-known Bergamotte Esperen, which first fruited in 1830, and rapidly became known as one of the very best of its season. Another pear, Soldat Laboureur, whose name bears reference to the career of its raiser, has never been much grown in this country, but it may still be found in many gardens in Holland and Belgium. The well-known Plum Reine Claude de Bavay was another of his seedlings, and was dedicated to Madame de Bavay, wife of the director of the Royal Gardens at Vilvorde. Esperen was the raiser of many other seedling fruits, some of which may still be found in Continental gardens, and his stringent selections made them all of very considerable merit. To have introduced three such valuable fruits as Josephine de Malines, Bergamotte Esperen and Emile d'Heyst is no inconsiderable achievement.

Another raiser of fruits who had considerable success was Xavier Grégoire-Nelis, of Jodoigne. His seedlings

were extremely numerous, but few of them have found acceptance in this country. The best known are Zéphirin Grégoire, one of the most delicious winter fruits, and Nouvelle Fulvie, which was raised in 1854. The somewhat curious name of this fruit is accounted for in the following manner. In 1845 M. Grégoire raised a variety called Fulvie Grégoire. When, however, in 1854, Nouvelle Fulvie appeared, its qualities were such an improvement that it thus received its name as a supplanter of Fulvie Grégoire.

While the above-mentioned horticulturists stand out as leaders in Belgian pomology, the raisers of pears may be numbered by scores, and it is impossible to deal with them exhaustively. Some of these have only one fruit to their credit, but in the case of M. Durondeau, a brewer of Tongres, Hainault, and M. Capiaumont, who was mentioned above, there is no danger of their names being forgotten.

Of the many chance seedlings of which the origin is unknown, the most famous are Beurré Diel and Calabasse Bosc. The former was found by Meuris, the well-known gardener to Van Mons, at a farm near to Vilvorde, and the tree was still existing fifty years ago. Scarcely less tamous is Calabasse, a discovery of Van Mons in the garden at Linkebeek.

It must not, however, be thought that pears alone occupied the attention of Belgian pomologists, though they did so to a very large extent. Other fruits recall by their names many Belgian towns, such as the well-known Plum Belle de Louvain, the Cherry Abbesse des Oignies, Cérise de Gembloux and many others.

But enough has been said to show the important place Belgium has filled in the history of pomology, and we may be sure that when the present war is over and the Belgian cultivators are once more able to devote themselves to their peaceful occupations, the memory of their famous pomologists will serve to inspire them with renewed zeal for a profession which they have always practiced with such conspicuous success.—From Gardeners' Chronicle (British).



VIEW OF THE FALL SHOW OF THE HORTICULTURAL SOCIETY OF NEW YORK. IN THE EACKGROUND ARE THE WONDERFUL SPECIMENS OF BUSH CHRYSANTHEMUM PLANTS FROM THE ADOLPH LEWISOHN ESTATE, ARDSLEY, N. Y. (JOHN CANNING, SUPT.) IN THE FOREGROUND ARE SOME OF F. R. PIERSON'S NEW VARIETIES OF ROSES.

# Bulbs in the Ornamental Garden

By Maurice Fuld\*

The plan of carpeting bulbs with other plants of a very different habit is now very general, but not so universal as it should be. Many people who are delighted with the beauty of bulbs in the grass will yet grow the same bulbs in beds or borders on the old regimental system, and they do this, probably, because they think it saves trouble to the gardener. It is so easy to fill a bed with Tulips in the autumn and then to lift them when they have gone out of flower to make room for summer bedding. But it is just as easy to combine them with plants such as Pansies, Forget-me-nots, the double Arabis, and many early flowering annuals, which may be removed at the same time to make room for the "summer bedding."

Progress in methods of gardening have been exceedingly slow in the past and one would have to expect the impossible if all the recommendations made in the foregoing article were at once adopted universally and the old-fashioned methods entirely discarded.

In view of this fact it is necessary to give here a few of the usual methods adopted in the growing of bulbs in everybody's garden.

THE AVERAGE COUNTRY GARDEN.

A flower bed, or what is known as such, is either in the form of a circle, or oblong, or square, or in ornamental shapes as stars, crescents or ribbons.

Here we will find during summer our popular tropical bedding plants, such as Salvias, Cannas, Geraniums, etc. When frost has killed the plants (about October or November) more, as a rule, in November the beds are cleared for the planting of bulbs for a spring display. Hyacinths, Tulips and Daffodils usually vie with each other in these beds.

\*By permission, from his boot, "Growing Bulbs,"

After bedding plants have been removed, cover your bed with a liberal quantity of well decayed cow manure, and if this is not obtainable use "Pulverized Cattle Manure," a very inexpensive and efficient bulb food, and spade the bed then thoroughly and quite deep for the manure or fertilizer must not come in contact with the bulb.

Bulbs must never be planted in beds which are not thoroughly drained or where the water stays long in the spring time, for such conditions spell absolute death to the bulbs.

It is advisable to form the beds sloping from the centre to the edge, for this will cause the surplus moisture to run off, particularly when the snow melts in the spring time.

The next question arises, How far apart should bulbs be planted? The solving of this question rests entirely with the individual, but this much cannot be disputed if solid effects are desired. Tulips should not be farther apart than four inches; Daffodils, five inches, and Hyacinths, six inches.

Color, height and season of blooming must be carefully considered if more than one variety is combined in a single bed.

In Hyacinths, varieties should be selected which produce an erect spike and not such as are top heavy, and must be supported.

In Tulips, heights and season of blooming are the important factors to consider.

Daffodils should never be mixed in a bed, but only one variety in one place gives the best result.

THE PROTECTION DURING WINTER.

I do not recommend the use of manure such as is commonly practiced for this has been the cause of more



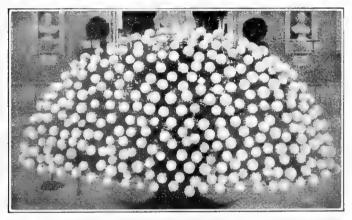
GENERAL VIEW OF MAYN HALL, FALL FLOWER SHOW, PENNSYLVANIA HORHOL - 1421 SOUTHLY, 1461 5

trouble than satisfaction. The best protection is either dry leaves, salthay or straw pinned down by boughs of evergreens. The latter in itself is sufficient. No protection should ever be given until the cold weather sets in. Protection is not required for the purpose of keeping frost out, but mainly to keep the frost in and its real worth is manifested in March when warm spells thaw the ground and encourage the bulbs to come through, only to be nipped by the first cold night. Do not remove the covering at the first sign of spring nor let it remain too long, but judge by weather conditions.

A sprinkling of pulverized sheep manure over the bed as soon as the covering has been removed will help materially to improve the size of flowers.

THE ITALIAN GARDEN.

Here the use of regimental beds of gaily colored



FANNED SHAPE SPECIMEN PLANT FROM ADOLPH LEWISOHN'S ESTATE, AT NEW YORK SHOW.

Hyacinths and Tulips and the golden Daffodils find the setting that nature seems to have designed for them. The very fields of Holland with their squares of scarlet and yellow and blue and gold and the tender shades of pink and lavender and white can be duplicated here.

The real effects, though, can only be achieved through masses, and quantity counts here more than quality.

Close planting is essential. Color combinations may be suggested, but after all they should be the product of the individual and the expressions of his own taste. A study of varieties, their character, heights, flowering season and color is absolutely essential to create the most pleasing effects.

The carpeting of other flowers through which these bulbous flowers rise add a particular charm to this style of garden and should be universally followed. But another effect I have in mind which the author of "Studies in Gardening" has entirely overlooked. If between the Hyacinths and the Tulips and the Daffodils you plant "Pushkinnias" thickly so as to carpet the unfilled space a perfect carpet of "heavenly blue" will greet your eye the first thing in the spring, long before the leaves of the Hyacinths or Tulips or Daffodils can spoil the effect.

By a careful selection of varieties and material the gay bulb season can be extended from earliest April until early June.

Pushkinnias appear first, then follow in rapid succession Crocuses, Scillas, Hyacinths, the Single Early Tulips, Jonquils, Single Late Tulips, Daffodils, Double Tulips, Poet's Narcissus and Darwin Tulips. All these are showy species and fit within the borders of a well designed Italian Garden.

The method of culture differs from that described in that the Crocuses and Pushkinnias should be planted but one inch deep. THE HARDY BORDER.

Again I wish to submit here an extract from "Studies in Gardening," as follows:

In the herbaceous border, however, the problem of the right use of bulbs is less easy; and yet it is not very difficult. True, there are many bulbs which are best lifted as soon as they die down, and there are others which resent disturbance at the very time when the border may need to be dug over. But both these difficulties may be overcome with a little contrivance and foresight. Take, for instance, the country garden, in that the Crocuses and Pushkinnias should be lifted at least every other year. These may be planted in considerable masses among carpeting plants or in clumps of eight or ten surrounded with plants that will contrast with them; and they may be taken up without difficulty when they have died down, and without injuring the plants about them. The arrangement in clumps is best suited to the taller May flowering Tulips and to other tall bulbs such as the Camassias, English and Spanish Irises, Crown Imperial Lilies, most of the true Lilies, and Snowdrops. Some of these, especially Madonna Lilies, resent disturbance, and it is the bulbs which resent disturbance that we have learned to grow in the most beautiful and rational way. No doubt, if Madonna Lilies could be treated like Tulips, they would often be bedded out like Tulips, and all their beauty would be spoiled. As it is, we grow them in the border and treat them like herbaceous plants, with excellent results. We should extend the same treatment to other bulbous plants, so far as their needs will allow. Thus, the May flowering Tulips should be planted in



COLLECTION OF ORCHIDS FROM P. A. D. WIDENER ESTATE (WM. KLEINHEINZ, GARDENER), AT PHILADELPHIA SHOW.

clumps of eight or ten at regular intervals along a border, and if a hundred or more of the same kind—say, of Gesneriana or Picotee—are then planted in the same border, they will produce a brilliant effect of color just when it is most needed, whether in contrast with flowering plants about them such as Wallflower or Forget-me-nots, or with shrubs not yet in flower, such as Lavender or Santolina. And, if necessary, they may be lifted when they die down, just as Wallflowers and Forget-me-nots are taken up when they go out of flower, and other plants or bulbs may be put in their place.

The later and larger growing bulbs are much easier to deal with in the border than the many little bulbs that flower early in the spring and then die down and remain dormant until autumn. It is possible, of course, to lift bulbs like Crocuses, Scilla Siberica, Scilla Bifolia, the Chionodoxias, the Pushkinnias, and the Muscaris as soon as they are dormant, and to plant them again in the autumn. But it is a troublesome business; and many of them do better if left undisturbed. Yet, though they make the border beautiful in early spring, they leave blank spaces just when it is expected to be fullest. If they are to be grown in the border they can be covered with Sedum album, which will not interfere with their

grown in the grass, where it is not too thick and coarse; but it usually thrives better under a Sedum.

When the foregoing was written the author evidently had not yet recognized the "Darwin Tulip" as the most popular bulbous flower to be used in borders.

It is wonderful how popular this majestic Tulip has become within the last three years and yet one should not be surprised for its merits deserve its popularity. Art shades such as mauve, wistaria, lilac, lavender, bronze and purple are found in all tones among hundreds of varieties offered today.

I shall refrain from suggesting superior up-to-date varieties, for the introduction of scores of novelties each season would make any selection obsolete in a comparatively short time.

Darwin Tulips in the hardy border should be planted with the set purpose in mind never to disturb them unless they have degenerated into poor, unsightly flowers; then they should be lifted and discarded and new bulbs should take their place. Before planting Darwin Tulips the spot where they are intended to be planted should be well prepared by removing the soil to a depth of two feet and placing in the bottom a layer of well decayed stable manure, fully six inches deep. The balance of the soil to



EXHIBIT OF ORCHIDS BY LOUIS BURK (CHAS. WURST, GARDENER), AT PHILADELPHIA SHOW, EVERY PLANT WAS TAGGED WITH A NUMBER; THE KEY TO THE NUMBERS WAS IN THE BOOK HANGING ON CASE.

growth, and which is green all the winter and very pretty when in flower. In this case they must be planted well in the front of the border as the Sedum, if it is to do well and flower, must not be overshadowed by other plants. But, indeed, these smaller bulbs always do best in the front of the border, as they are apt to be forgotten and dug up if they are among large herbaceous plants, and also they do not get the summer sun which most of them need to ripen them. It is also possible, of course, to sow some low growing hardy annual over them, especially over the Scillas and Chionodoxas, which like to be planted deep in a light soil. But this is not so easy to manage with Crocuses, which like to be planted just under the surface. The best plan of all, perhaps, with these little bulbs is to plant the Crocuses and Muscaris in the grass, where they will thrive, and the Scillas and Chionodoxas and Pushkinnias on some sunny bank which they can have to themselves. Such a bank may be carpeted with Sedum with excellent effects. Scilla Siberica may also be

be replaced should be well mixed with ground bone, but where the bulbs are set the soil must be pure. Darwin Tulips should be set six inches deep so that you can plant annuals such as Lavatera or Gypsophila right over them when they have ceased blooming.

What would otherwise be a barren spot can be a sheet of color for the balance of the season. Next to the "Darwin Tulips" the other classes of late flowering Tulips should be more frequently employed; for instance, the Rembrandt Tulip with its wonderful markings, the Breeder Tulip with its sombre color, the Bybloomen and Bizarres with its fantastic stripes and flakes, the newer sorts of Cottage Garden or May Tulips which are as gay as the "Swiss Sennerin," and last but not least the family or species of Wild Tulips, these more than all the others are by nature fitted for the hardy border, for all perennials are only cultivated wild flowers. The Wild Tulips do wonders when they receive a taste of prosperity, and some varieties are without doubt superior in colors, markings

and effectiveness to all the cultivated sorts. Tulipa Kaufmanniana, T. Thubergeniana, T. Sprengeri, T. Clusiana, T. Greigi and many others are real jewels among flowers.

The selection for the hardy border is more extensive than for any other purpose in gardening and all of them should be used to make the border truly what it was planned to be, "the roaming place for all hardy flowers."

#### THE ROCKGARDEN.

This style of garden, while yet an unknown quantity in this country, will in the writer's opinion become one of the most popular styles of gardening in the future. Some of the most lovely hardy plants are only at home in the rockery, and this holds particularly true of the smaller bulbous flowers. The well-built rockery can provide every condition these flowers demand; for instance, drainage and protection. The species of wild Tulips also known as Mountain Tulips find here the exact duplicate of their native home and many varieties can be made permanent here. Their season of blooming extends over a long period of time, even of a single variety, so that when planted in clumps one finds some of them in flower, some in bud and some already past.

Tulipa Kaufmanniana does exceedingly well here, for it needs sharp drainage. It was introduced only a few years ago and is almost the earliest to flower and the most beautiful of all tulips. Early in April or sometimes in March its blossoms begin to open, at first creamy white and then flushed with pink on the outside, while the inside has a golden centre like that of a water-lily. It seems to withstand the severe weather well and it is not unusual to see its great blossoms open above snow-covered ground. Tulipa Biflora, a beautiful little species with several white blossoms on a stalk is another beauty. Tulipa Lownei, a dwarf tulip with delicate pink blossoms, and T. Pulchella, a pretty red tulip marked inside like a calochortus, seems to thrive here. Tulipa Linifolia, rather late, when planted in large clusters appears like a

glow of scarlet. All these bulbs look best rising through a carpet of Sedum, whose roots are too shallow to interfere with the bulbs and whose leaves are not thick enough to prevent them from ripening well in the summer.

In fact, all the species usually offered may with safety

be adopted for the rockgarden.

There is a class of Daffodils that by nature must have been designed for such a garden, for this style of garden demands flowers which are rather prostrate or dwarf in habit of growth, and invariably with such plants the flowers are rather of miniature size.

The following varieties I should recommend: Tenby Daffodil, Princeps, Queen of Spain, Cyclamineus, all varieties of Bulbocodiums, Triandus Albus, Nelsoni Minor, Jonquillas, Juncifolius, Diomedes Minor, and Montanus Poculiformis. Of Hyacinths the class of Muscaris are ideal, such as Grape Hyacinths, Feathered Hyacinths and Muscari Azureum, the latter flowering as early as February if weather permits.

#### THE FALL AND WINTER GARDEN.

Who does not cherish the Witchhazel blossom in

February or the first Snowdrop in March?

With proper selection of material one can have something in bloom from November until April. Start with Sternbergia; planted in October, its bright golden Fairy-lily like flowers cover the ground in November; the Colchicums planted in September are still gay in colors; Crocus speciosus is just coming into bloom and C. Sativus and C. Zonatus follow it in December.

If you have a clump of evergreens facing the south, or you have a warm border on the south side of the house, plant a few bulbs of Crocus Imperati and its blue blossoms will greet you the first sunny days in January and as often in the month as we have sunny days.

offen in the month as we have sumy days.

If you have a cluster of trees under which the cold winds find no entrance, plant a few clumps of Chirstmas Roses (Helleborus). Even through the snow they will



GARDEN SCENE AT MADISON, N. J., FLOWER SHOW, ARRANGED WITH CHAS. H. TOTTY'S COLLECTION OF CHRYSANTHEMUMS.

push their cherry faces of white and say "Hello" to you in February. Other species of Crocus would flower every week in the winter if a sheltered nook, where the sun can reach them, was chosen for them; and so we could make our garden so interesting during the winter that there would be no need of putting it out of our memory for three to four months.

### CHRYSANTHEMUMS FOR EXHIBITION.

After the shows are over look to your stock for the coming year. Select as many good healthy shoots as required, seeing that each variety is labeled correctly; keep clean from mildew and fly; and when the propagating time is at hand select the sturdy cuttings and insert in the bench already prepared, watering in thoroughly. This will carry them for a few days, besides firming the cuttings. Keep them sprayed lightly to guard against wilting.

They should be rooted in about three weeks; then pot up in 2-inch or  $2\frac{1}{2}$ -inch pots with a nice light compost, but do not firm sufficient to injure the roots. As soon as they are established give an abundance of air to keep them firm and sturdy, but never allow them to become root bound.

It is essential to have the pots thoroughly clean in order to transfer them without injury. Repot into 4-inch pots with a nice compost consisting of three parts of fibrous loam to one part leaf soil and one part decomposed manure, adding charcoal, wood ashes, sand, etc. Place in a house or frame and keep closed for two or three days. Many people bench from 4-inch pots, while others prefer the pot grown, which latter I am strongly in favor of.

When they become nicely rooted, repot into 6-inch pots, using practically the same compost, but coarser, besides adding a little bonemeal. Keep a sharp lookout for mildew and fly; also to the disbudding. Should the plants not show a natural break at this stage, it is policy to pinch in order to encourage the next break.

When the pots become well filled with roots, an occasional watering with diluted liquid manure or soot water may be given with advantage. A spraying overhead with the latter is also beneficial as an insecticide and stimulant.

See that the plants are hardy and well-rooted before placing into final pots (7-inch to 9-inch). Perfect drainage is most essential.

The soil should be well rammed, allowing a space of 2 inches for watering and top dressing. For compost use

four parts fibrous loam, one part leaf soil, one part decomposed manure, adding lime rubble, wood ashes, charcoal, sand, soot, and allowing a 6-inch pot of bone or bonemeal to each of loam.

Feeding may be commenced as soon as the roots are found to be running freely, by applying weak doses of liquid manure water. Change the feed sometimes as time goes on, using chemical manure such as Clay's, Bon Arbor, etc., which will be found most beneficial if used with care and according to directions. Never apply manure when a plant is dry.

About the middle of June some varieties not making a natural break, such as F. S. Vallis, Harry E. Converse, Mrs. Lopes, etc., will need pinching to make them produce bud early in August. This allows about six weeks for the last break; later varieties should be timed accordingly.

About the tenth of August many of the buds will be ready for taking. After this date it is safe to take all buds as soon as they become large enough to handle without injury. In disbudding discretion must be exercised by removing a few at a time. Keep the plants nicely staked, tied and clean.

After the buds are secured look out for their worst enemy, the red spider, which will give considerable trouble if they once get into the blooms. To avoid this fumigate once a week until buds show color; continue spraying foliage on bright days, avoiding the buds, which will rot if the water is allowed to settle in them. Also beware of the hairy caterpillar, which will ruin the foliage. Shade is sometimes necessary to guard against the burning of the petals during hot, bright days, the bronze and red varieties being more susceptible to burning than the other colors.

Cut blooms intended for exhibition are greatly benefited if put in water twenty-four hours before shipment. In packing, the blooms travel much better if wrapped with a full sheet of soft tissue paper, which is quite easily done by slitting the paper at the fold, inserting the stem in the slit just below the bloom, then gathering the folds and fastening at the top of the bloom with a gentle twist.

In staging, see that all blooms are fresh, unblemished, and preserve as much foliage as possible in the long stem classes, as fresh blooms with good foliage generally capture the most points.

. Proper and  $I: \mathbb{R}[m, T] \to \mathbb{R}[n]$  ,  $t^{k}$  . Constant of the S -adv of Anorda, Theodology I(a)



FXHIBITION OF CHINESE AND JAPANESE VARIETIES, DEPARTMENT OF A PROTECTION WASHINGTON

## The Gardener and His Profession

By W. N. Craig.

I need not say how ancient and honorable is our calling, and surely the Almighty, when he placed our earliest forefathers in the Garden of Eden, must have given them a glimpse of Paradise itself. We, their successors, in these later years, while we may often complain of our lot, should remember that as tillers of the brown soil, we have at once the most lovable, fascinating and enthusing of professions. We work in the most wonderful laboratory in the world, and even though many of us may not have the scientific attainments we might wish, in spite of some discouragements, failures, and possible drawbacks, we know and feel as much of the great secret of life itself as those who spend countless hours reading and soliloquizing over protoplasm, and the essence of all being. We plant, prune, sow, and reap, of not only things horticultural, but faith and hope. We garner rugged natures, and given rude health, our sleep, in spite of unavoidable worries, is so sound and sweet, that frenzied financiers and moneyed kings would fain have the comparative freedom from care and restful repose which is

The very word "gardener," to come back to the more practical part of our subject, is ofttimes a misnomer. The United States Census statistics state that gardeners outnumber florists over two to one. I do not know who are classed as gardeners. Probably jobbing gardeners, market gardeners, and the general handy men who earn some considerable portion of their income from caring for gardens, are included in this category. What I have to say will refer to only a small fractional part of this body, commonly known as private gardeners, but more correctly as professional gardeners.

The gardener is, or *should* be, not only one who is a florist, but very much more; he should have a good general knowledge of horticulture in its broadest sense, and this is not by any means all, for there are an increasing number of calls for men who are good gardeners but who in addition are capable of handling all details of estate management, and the man who is to fill these positions must be wide awake, energetic, eager to learn, and never satisfied to muddle along in any happy-golucibus ways as is too often the case to day.

lucky way, as is too often the case today.

To be a good practical gardener in itself requires a great deal of care and forethought; I doubt if there is any other occupation which requires one to have his senses more keenly alert. A trifling omission today, or a little oversight tomorrow may seem unimportant at the time, but may cause much worry and anxiety at a later date. One of the best friends a gardener can have is a carefully kept *diary* of operations, of the weather, time crops mature, etc. I was advised when a boy to keep one, and have continued it religiously, and I can honestly say that for the little time necessary to keep it, no gardener should be without it, particularly would I urge upon young men to do so.

I have often been glad that in my early gardening days I had the rare good fortune to serve under one who was not only a good practical gardener, but a good botanist. I still highly prize a collection of 420 varieties of the British flora I collected after work hours, while I was still a journeyman. I wish I knew *more* botany: it is of great help to every practical gardener. We often hear the remark that good botanists never make good gardeners. This is not at all true; where could we get a hetter example of both than in one of our fellow members—the respected superintendent of the Harvard

Botanical Gardens (Mr. Cameron). The value of botany may not be very apparent while you are young, but its knowledge will be very helpful as you advance in life.

The majority of us have not had the advantage of college, or even high school training; and it says much for the grit, perseverance, and skill of many who, spite of these educational drawbacks, have risen to good positions and are in many cases leaders in their profession. Times, however, are changing, new conditions have arisen and now face us, and we must equip ourselves to meet them. I refer more particularly to the so-called college graduates who are being trained to fill posts such as we now

occupy.

I believe largely in a college course, and that the young man who can have both a horticultural and agricultural training in such colleges as Amherst or Cornell, while they may gain less of the really practical work than on a private estate, will gather, nevertheless, a good theoretical knowledge of the fundamentals of our profession, and will, in many cases, be more eager for knowledge and quicker to learn than those who have started at the foot of the ladder and are slowly but diligently plodding along in the regulation way. I have sufficient faith in the college course to recommend it to any who are able to send their boys there. Certainly, if any of my own boys show a sincere desire to follow in their father's profession, I would feel it were money well expended to send them there.

I think, however, that the college bogy has been held up too much. I don't believe that a college course at all fits a man for assuming charge of even a small estate. The drawbacks in our agricultural colleges today are, that really practical men are to a large degree lacking. I don't mean to infer that the professors are not bright, intelligent men; but how many of them have had any great degree of practical horticultural training? When our colleges select men who are first-class growers to have charge of their greenhouses and grounds, men who will be free from petty interferences, from the more purely theoretical teachers, then they will turn out young men who can with greater confidence apply for positions where practical worth is needed. Even then, I doubt if such men would be competent to take charge of any positions before spending a year or two on some private estate.

Let us, however, be fair; let us be tolerant; remember that these young American boys should have a helping hand and not be sneered at, rebuffed, and discouraged. Do not forget that, while we may pass through life without a college course, in the years that are coming the need of more scientific attainments will be greater than now, and botany, chemistry, and other essentials will be much more necessary. The practical gardener of the future, the estate manager of the future, must know these things, and he who thinks otherwise will be woefully left

in the procession.

Then we have, or may have, competition from another source. I refer now to the so-called landscape gardeners, or architects, as some prefer to call themselves. To some of these, men on a high plane, with a national reputation, we would all be ready to doff our hats; but there are now a veritable flood of these embryo landscape gardeners, female as well as male, being turned loose on suffering humanity. I don't refer for a moment to the jobbing gardener or florist who has the magic words "landscape gardener" printed on his letterhead, but to the more cultured product of Amherst, Technology, and Harvard.

Situated where I am, I have abundant opportunities to see and study these rising, active, and intelligent young men. They are being turned out in such numbers that I wonder what must become of them all. Now, I have noted that nearly all these youths, and their teachers, can talk pleasingly on landscape designs, but that so far as practical gardening is concerned, they know very little indeed. Yet these men are intruding themselves upon those who have forgotten more of horticulture than their new fledged landscape artists know, and in not a few cases are allowed to draw plans, make changes, and suggest or even superintend plantings for which they are grossly unfitted. I think I am safe in saying that not one landscape gardener, architect, or artist—choose whatever term you like best-in ten, is competent to draw up plans, suggest proper plantings, and see such carried out.

I will take up another question, one which is of vital importance to everyone. I refer to gardeners' remunerations. I know many gardeners are getting too small a salary for the work they are doing. I know also that others are overpaid for the little they do and produce. I know further that on an average the scale of wages may seem low compared with that secured in other professions where a comparatively low degree of skill is needed. But conditions have much improved in 25 years, the rate of remuneration has advanced, and I believe the average practical gardener is, on the whole, more appreciated than a quarter of a century ago. We must always remember that gardening is more or less of a luxury; we cannot fix or regulate salaries by any trades union, cooperative or other method; any such efforts would prove

disastrous to our profession.

We can, however, instill in the minds of our employers that confidence, and almost intimate relationship, which should exist between employer and employee. Such noted British patrons of horticulture as the Duke of Portland, Sir George Holford, the Hon. Vicary Gibbs, Sir Jeremiah Colman, and others I might name, look upon, and speak of their head gardeners as friends rather than employees, and are not afraid to say so on public occasions, when both are present. I feel we are approaching in some measure that condition here. Once real confidence exists, wages will regulate themselves. Let us do our work so well that our employers will feel that an advance in salary is well merited. All employers are not equally appreciative, however; some there are who give praise grudgingly and find fault unstintedly. It is not necessary, however, for any first-class gardener to continue indefinitely with such, for there are many kindly and appreciative employers who would not starve the very souls of their employees for want of a few kind words, as some are doing.

Now, fellow members, you may not believe it, but I do, that the principal reason why a great many of our members make no headway, is, because they fall considerably below the requirements of their employers. They don't measure up to their opportunities; in short, they are stand-pats, and not progressives. I feel also that our profession is retarded, and seriously retarded, by a large proportion of the men within its ranks. There should be a weeding out of this incompetent and undesirable material. How it can best be accomplished, I cannot say. Many have no right to the name of gardener. Such men should never be recommended to positions of trust by

those who are asked to fill them.

Co-operation is in the air, and here I can see hopes of much benefit to our craft. The National Association of Gardeners is accomplishing a good work, not only for its own members, but the profession generally; and I advise every gardener not yet a member, to join it. This is the only purely private gardeners' national asso-

ciation in America, and the only one, in my estimation, which can be of real benefit to our members. While we have the friendliest of all feelings for the various trade bodies—I belong to at least five of these myself—and are always willing to help them in every possible way, we must remember that they have their own problems to face. We also have others fully as complex. We cannot in any trade society get that sympathy and ready support that is forthcoming in a body largely confined to practical gardeners; therefore, if we can belong to but one national society, let it be the National Association of Gardeners.

As each year rolls on, our perspective changes, and I want to say that it is changing very fast in favor of outdoor horticulture. I am not underestimating the value of greenhouses; they are, however, not of vital importance; many first-class places have little glass, some none at all; probably these greenhouses are visited a few times yearly, at most. They serve their purpose, but are invariably placed in as inconspicuous a place as possible, so as not

to be a blot on the landscape.

Now, the outdoor department is ever in view, and more men should equip themselves to handle this part effectively. Trees and shrubs, their proper planting and care; hardy herbaceous plants; bulbs, both naturally and formally planted; tennis courts, their formation and care; fruit trees and their care; tree surgery, including both pruning and cement patching; spraying, now of vast importance; proper rotation of farm and garden crops; live stock and their care; bird protection—our winged aerial fleet is of supreme importance—these are a few subjects we should all be conversant with.

Then again, do not let us give every moment to our estates; we need some relaxation, such as the fraternal orders offer us; but let us, wherever possible, be of some little use to the community in which we reside; we can all assist in civic betterment, by aiding in the home and school garden movement, by encouraging the proper planting and caring of trees on our streets, by helping along the public grounds movements, and in other little ways trying to make conditions more pleasurable for young and old. We will get no salary for this, but there is the satisfaction of knowing that you are doing good to others.

I have often heard gardeners speak contemptuously of book learning, and have even heard some say that they never read a horticultural paper. Such men are to be pitied—they are never found in the van of progress. Our American horticultural papers may not be all that private gardeners could wish them to be, but they are filling their field acceptably, and every gardener should patronize one or more of them. Their price is low, and none of us are so advanced that we cannot learn something each week if we will do a little careful reading. I wish more gardeners would send communications to the horticultural press, as is done in Europe; I am sure the editors of all the papers would welcome such.

I want to see our noble profession better recognized than it is today, to see its craftsmen more looked up to and esteemed, to see a better feeling existing between employer and employee. Let us all, therefore, labor unitedly to seek each others' welfare in a better grasping of the needs of our calling, and try to be of special help to those who need our aid the most, and remember that we who are constantly working assiduously in Nature's boundless workshop are working at the same time very close to the great Creator of all life; therefore let our lives be as harmoniously beautiful and bountiful as are the works of Nature's God.

Extracts from a paper read before the Gardeners' and Florists' Club of Boston, November 17, 1914.

## Work for the Month of December

By Henry Gibson

THE FLOWER GARDEN. (WINTER PROTECTION.)

We have reached a period of the year when severe cold may be expected any time, and winter protection should be afforded whenever necessary. It is not a good plan to rush this work ahead when the weather is warm or it is likely that any benefit to be derived from giving the plants winter protection may be undone. Generally speaking, it is better to delay putting on any covering until the ground is well frozen. Then the mulching of whatever nature it may be will keep the ground frozen, which is just what is needed.

Alternate freezings and thawings are bad for any plants, and especially those which have to stand the ex-

treme cold of winter.

Dutch bulbs should not be covered until the ground is well frozen. If covered before, frost will be practically excluded, and the soil thus remaining soft the bulbs have every opportunity of pushing ahead and when the time comes to remove the covering in the spring it will be found that the tulips and hyacinths will have such long and tender growths that even with the greatest care in uncovering many will be broken.

### HARDY ROSES.

Drawing up the soil to the centres of hybrid perpetual roses will be sufficient protection in the meantime, and a heavier mulch of litter may be applied later. In sections where it is extremely cold it may be necessary to wrap the stems in straw in addition to mulching with leaves and soiling up.

### Pansies.

Where pansies are wintered in cold frames it is an easy matter to carry them through successfully by scattering a light coating of dry leaves over them. But be sure that they are dry; damp leaves soon weigh down the plants and cause decay. As the cold weather advances place sashes over them, taking care to air freely during warm spells.

To winter successfully outdoors pansies should be planted on well drained ground. Leaves are excellent covering where they can be held in position, but in windswept locations this is difficult, and under such circumstances, straw, salt marsh hay and similar material make

the best covering.

### RHODODENDRONS.

These are only hardy in the colder sections of the country when well protected. Often a good wind break of boughs will be found sufficient, and in other cases it may be necessary to put on a heavy mulch of leaves and erect a heavy frame work of evergreen branches above and around the beds. Where evergreen covering is hard to obtain, burlap may be used to advantage, but when this material is used provision should be made for a free circulation of air about the plants or much harm may result. Having adequate moisture at the roots is an important factor in the wintering of not only Rhododendrons, but other evergreens as well. More losses during the winter are due to drought than any other cause. Then, again, location has a good deal to do with how they come through. Those well shaded from the morning sun will in all probability come through all right, while the same plants in a southern location would be scorched or killed outright. We all have noticed the brown

scorched appearance of evergreens above the snow line, and especially on the south side. This scorching is undoubtedly caused by dryness at the roots. The heat of the mid-day sun causes a demand for moisture from the leaves, which cannot be supplied owing to the dry frozen condition of the soil.

## PROTECTING EVERGREENS FROM SNOW.

While on the subject of protecting evergreens it may not be out of place to say a word regarding their protection from snow. The disfigurement of evergreens by being weighed down with snow is happily not so common a sight as it used to be. Gardeners are beginning to realize that it is to their advantage to attend to this before heavy snow storms are due. By dislodging the snow the branches of these trees may regain their proper position, but many of us know from experience that this trudging out to dislodge wet, heavy snow, and tie in the branches, is no pleasant task on a stormy day. Nor is it necessary, if proper attention be given this work while the weather is fine and dry. This consists of tying in the branches with string or rope, and occupies but a short time compared to what it would take to replace the damage done, were it neglected.

Moreover, there are evergreens that are not as hardy as others and this tying in would, in a measure, be extra

protection from the cold.

### THE GREENHOUSES.

With the advent of colder weather, and consequently, the increased use of fire heat, it will be necessary to damp the walks in the house frequently to prevent having a dry arid atmosphere. In such an atmosphere our arch enemy, red spider, revels, and once he gets himself established its no mean undertaking to get rid of him.

The cement paths usually found in private greenhouses are very nice to walk on, and neat to look at, but they don't hold moisture as does a path covered with gravel or fine ashes, so keep the hose in use, when you are firing

hard.

In houses where a night temperature of from 65 to 70 degrees is maintained it won't harm a bit to damp down the path, when the fires are being attended to at bedtime. We have done it in a rose house, when firing heavy and the atmosphere felt arid.

### SWEET PEAS.

The plants which were raised from seed last August will bloom this month, and will be benefited by a little feeding, but care should be exercised in doing this with the short dark days upon us, or the plants may drop their buds. Cow manure well diluted is safe to use, or a light dressing of fine bone, pulverized sheep or cow manure can be applied. Strong chemical fertilizers at this time of the year should be avoided. A dose of nitrate of soda water and a succession of dark dull days would result in wilting the first day the sun was out.

### VIOLETS.

The whole of the shading should be cleaned off the violet houses, now, if not already done. Violets grow and thrive luxuriantly in the deep shade of the woods when growing naturally, but to obtain the best results when forced during the winter months they should have all the light possible.

## HERE, THERE AND EVERYWHERE

## OPPORTUNITY TO EXPERIMENT WITH FOREIGN PLANTS.

The Bureau of Plant Industry, U. S. Department of Agriculture, is about to issue its catalogue which will describe over 300 species or varieties of new foreign plants, most of which have not been grown to any extent in this country. Familiarity with them is consequently very limited, and they are not like standard seeds and plants, the hehavior of which can be predicted with more or less certainty. They have been imported for trial because of some direct or indirect use which it is believed can be made of them by Americans.

These plants are introduced primarily for use by the Federal and State Experiment stations of the country, but are available to such private growers as have the necessary facilities and are desirous of testing them, notwithstanding the fact that they are quite untried commercially. Since these plants must ultimately be grown by private individuals before their commercial success is assured, it may be well to point out that those private experimentors who test these problematical new plants are assisting in a very practical way in the plant introduction work of the country even though they are not paid for their work.

It is often around the successful cultivation of a new introduction by some private individual that a new plant industry begins.

The new plants imported by this office of the Department of Agriculture are in most cases so little known to experimentors that their scientific or even common names alone would convey little idea of their character. To enable him at any time to refresh his memory as to the use of any one of these introductions, special celluloid tags have been devised upon which are printed sixty words of description. These descriptive tags are attached to the plants when they are sent out. The catalogue is made up of the identical descriptions which will appear upon the celluloid tags.

The information on the labels consists of the Plant Introduction (S. P. I.) number, under which the plants are known at all times, of the scientific name and a common name, when one has been adopted for this country, and a brief description of the plant with its uses, and, where possible at this time, a suggestion of the gen-

eral region to which the plant is likely to be adapted.

The Bureau of Plant Industry invites the cooperation of gardeners in testing out these foreign plant introductions, both for greenhouse and outdoor purposes, to enable the Bureau to learn of their suitability for our varied climates. It is to be supposed that some of these introductions will adopt themselves to any of our climatic conditions and some only to certain conditions, while it will be found that others cannot be grown at all successfully in this country. It is for the purpose of gaining knowledge of these plants' behavior in different sections of the country that they are being distributed among those who signify a willingness to aid in the experiments. Gardeners desiring to interest themselves in this work are requested to address: P. H. Dorsett, in charge of Plant Introductions, Bureau of Plant Industry, Department of Agriculture, Washington, D. C.

## TIMELY HINTS FOR NOVEMBER, DECEMBER AND JANUARY.

Collect egg masses of the tussock moth.

Cut out and burn all hickory trees infested with hickory bark beetle.

Begin to spray fruit trees against the attacks of all scale insects.

Cut away all twigs and branches of plum and cherry trees infested with "Black Knot."

Pick off all mummied fruit from peach and plum trees and gather all diseased fruit from the ground and burn.

Prune and remove dead wood from trees. Treat cavities before freezing weather.

Protect rhododendrons with evergreen boughs; partial shade during bright days in winter is all that is necessary against sun

scald.

Cut around the base of trees to be moved this winter and fill trench with strawy manure. This will allow you to easily move tree with a frozen ball.

Take out trees badly infested with the locust borer.

Where apple orchards are badly infested with apple scab, plow to bury the fallen leaves, the chief sources of primary infection in the spring.

For peach rust wash the trees in winter with ferrous sulphate

one-fourth, to destroy spores.

Inspect all pear trees for fire blight now and again in early spring before blossoms open and cut out and treat all cankers in main limbs and body.

Use all of the fallen leaves for a mulch for the trees. Do not burn them.

Cut out portions of willow and poplar infested with the willow and poplar borer.—Tree Talk,

### NEED FOR SHADE TREE EXPERTS.

Too little appreciation of the value of shade trees is evident in many towns and cities throughout the United States. The residents and the city officials do not realize how much more attractive their city would be if it had well-shaded streets and trees about the residences. Perhaps this is because the majority of them have never seen such streets as, for instance, those in Washington. It is a condition which may be overcome by education.

There is need for experts in shade tree conditions who are competent to fill positions for the care of a city's trees, as it will not be many years before all the progressive cities in the country will have shade tree commissions or departments having power to engage men to care for their shade trees. Provision is now being made for the apparent need of these men by several of the colleges which have already inaugurated, or are contemplating inaugurating, a department for the training of experts in shade tree work.

Several cities where the value of such trees has been appreciated have shade tree departments which not only provide for trees owned by the public, but give service for those privately owned, and in every instance where the management is competent and the appropriation sufficient to meet the needs the citizens have reason to be proud of the result.—American Forestry.

## PROPOSED JOINT EXHIBITION AT NEWPORT, R. I.

There is a good prospect of a big joint exhibition in Newport. R. I., next summer in which it is hoped that the three local horticultural organizations -- the Newport Horticultural Society, The Garden Club and the Garden Association-may participate, in conjunction with the American Sweet Pea Society and possibly the American Rose Society. At a recent meeting of the committee of the Garden Association, they expressed themselves in favor of joining with the Horticultural Society in holding a sweet pea show at the Casino, and much interest has been manifested in the project. It is proposed to offer substantial prizes for sweet peas growing in tubs. The date suggested is about July 8, 1915. Secretary Bunyard of the American Sweet Pea Society is doing all he can to further this interesting proposition and is endeavoring to induce the Rose Society to co-operate. If Mr. Bunyard's plans are backed up, Newport will have the most notable exhibition of the season. Roses should be very fine in that section at the time proposed and the Rose Society would be right in its element.—Horticulture.

## DEMANDING CONSERVATION OF THEIR TREES.

Residents of Lake Forest, Ill., stirred by the fact that the shade trees on the streets of their attractive town are not getting the proper care, recently held a mass meeting and presented to the City Council some resolutions demanding vigorous action. They mean to see that the City Council does not neglect their request and will do all they can to beautify their streets and gardens by planting appropriate trees and shrubbery and seeing that those already planted receive proper care.

The resolutions quote the fact that the care of trees and shrubbery against ravages of insects and disease is being weakened by ill-advised planting of trees not suitable for the ground and climate and asking the City Council to appoint a permanent commission to safeguard the trees of the city, this commission to be empowered to superintend such conservation and forestry work as is deemed advisable, to insist on co-operation from private owners, and if possible join with other towns in the vicinity in engaging a competent forester to oversee all advisable work.—Exchange.

### REPORT OF THE S. A. F. SCHOOL GARDEN COMMITTEE.

Within twenty years the idea of school gardening has spread from Boston to the Pacific Ocean and to the Philippine Islands under United States Control.

Twenty-two years ago at the S. A. F. convention, held in Washington, D. C., Mr. Robert Farquhar, of Boston, delivered an address recommending school gardening, from which we quote:

"I think the members of this society should make a united effort to have the claims of floriculture for children and kindred subjects recognized in all our schools. I feel sure that a large majority of the teachers would give their hearty support to wisely planned efforts in this direction. I am honored by the acquaintance of one or two teachers who have for years distributed many hundreds of plants among their little pupils and with most encouraging results."

(Continued on page 259.)

## GARDENERS' CHRONICLE

OF AMERICA.

Published by

## CHRONICLE PRESS. Inc.

Office of Publication

286 FIFTH AVE., NEW YORK.

MARTIN C. EBEL, Managing Editor. EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.00 Foreign, \$1.50 ... Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. 1., under the Act of March 3, 1879.

Published on the 15th of each month. Advertising forms close on the 10th preceding publication.

For advertising rates apply to Robert F. MacClelland, 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

## OFFICIAL ORGAN OF

### NATIONAL ASSOCIATION OF GARDENERS

President, WM. H. WAITE, Yonkers, N. Y.

J. W. EVERETT, Glen Cove, N. Y.

Treasurer, JAMES STUART, Mamaroneck, N. Y.

Secretary, MARTIN C. EBEL, Madison, N. J.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; William Duckham, Madison, N. J.; Alexander MacKenzie, Highland Falls, N. Y.; John H. Dodds, Wyncote, Pa.

### DIRECTORS.

DIRECTORS.

To serve until 1915-—John Shore, Harrison, N. Y.; Thomas Proctor, Lenox, Mass.; William N. Craig, Brookline, Mass.; Frank E. Witney, Fishkill, N. Y.; Robert Williamson, Greenwich, Conn.; F. Kirk, Bar Harbor, Me.; James Bell, New York, N. Y.
To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.
To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

## AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President, GUSTAVE H. AMRHYN, New Haven, Conn.

Secretary-Treasurer, ROLAND W. COTTERILL, Seattle, Wash.

JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

Vice-Presidents, CARL W. FOHN, JOHN HENDERSO Colorado Springs, Colo. Montreal, Canada. JOHN HENDERSON, J. H. PROST, Chicago, Ill. CHARLES HAIBLE, Newburgh, N. Y.

### Vol. XVIII. NOVEMBER, 1914.

No. 7.

The fall flower shows of 1914 are now an event of the past. When general conditions are taken into consideration, as they affect the country at large, it can be said that interest in the shows, from the point of exhibits, was equal to previous years. From the point of attendance, interest seemed decidedly less favorable, especially at the more important shows. Horticulture sounds a timely warning when it states that there is something fundamentally lacking in the appeal for support and that the right keynote to tune the people up to the proper pitch, and touch a responsive chord, has yet to be sounded. It adds that the sameness of exhibits and lack of decorative effects at our shows may cause popular interest in them to wane. We can subscribe to such a sentiment as we have heard murmurs at the shows this fall that they all seem alike and if you see one you have seen them all.

The layman does not view the shows with the sense of a horticulturist, who seeks the fine points and qualities of the blooms and plants exhibited. The former is looking for display; something that will be pleasing to the eye, and he soon tires viewing long rows of blooms stuck in vases "all looking alike to him." Surprises must be innovated at flower shows as they are at other shows, if the public is to be catered to. More attention must be given to arrangement and in competition arrangement should count with the quality of the exhibits more so than it does now. It is with flower shows as it is with the playhouse -the public wants a frequent change of scene for it soon tires seeing "the same old thing," no matter how good the production may be.

The purpose of the Park Institute of New England, an account of which may be found elsewhere in these columns, are worthy of careful consideration on the part of park officials throughout the country. A chain of similar organizations all linked to the national association of the park superintendents suggests great possibilities, and the accomplishments of such territorial organizations could be made the basis of an interesting and helpful discussion at the annual convention of the national organization. There is no doubt that the demands on park officials are multiplying. It is not so long ago that recreational facilities were but a small factor in park development, but they have become a tremendous factor of park management. To-day the civic improvement propaganda, which calls for city and town beautifying, makes additional demands upon park officials in many places. Park superintendency to a very large extent must be classed as a self-acquired science, and so the related experiences of one frequently prove helpful to another, especially where new conditions constantly enter into the work. Such suggestions as are provided for by the New England Park Institute should prove helpful to those who have the opportunity to participate in them.

The cooperative spirit is now stirring among many local horticultural societies. Apropos to the cooperative movement between local organizations and the gardeners' national association, the following advice recently uttered by one of the foremost economists of our country, may, if accepted, prove helpful in what the gardeners are undertaking. Referring to commercial organizations he said, "Let us unite them in the work of creating an informed and sound public opinion. Let the work of doing that be parceled out with the genius that you who know the value of organization, of cooperation, of the subdivision of labor, in the management of your own affairs, have proved you possess. See that the wisest and ablest men of your community are placed in the executive positions of your organizations. Make of yourself such earnest and able lieutenants that the detail of organization may be complete and effective. Understand fully that this means self-sacrificing service; that it means an expenditure of time, and that it means constant, cooperative effort. Through your organizations, see to it that every mis-statement of fact, whether made in the press, or in any public utterance, is challenged. Let men understand that loose statement, that mis-statement, can no longer go carelessly on." The suggestions contained in the quoted remarks can be adopted with profit by all organizations, whether commercial or professional, and if the recommendations are strictly observed must bear fruit wherever effort is directed.

## NATIONAL ASSOCIATION OF GARDENERS

W. H. WAITE, President, Yonkers, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

## ANNUAL CONVENTION NATIONAL ASSOCIATION OF GARDENERS.

Philadelphia, Pa., Wednesday and Thursday, December 9 and 10, 1914.

The Committee on Arrangements Thomas Logan, William Kleinheinz and John H. Dodds reports the following programme

for the annual convention of the association;

Wednesday Afternoon (December 9). The business meeting will be called to order promptly at 2 o'clock at Horticultural Hall, Broad and Locust streets, Philadelphia, Pa. It is requested that all members attending the convention be in their seats promptly at that hour as one of the city officials will be on hand to welcome the visitors. After the meeting's routine business is disposed of and the officers for the new year elected, the members will be addressed by several prominent horticulturists on subjects pertaining to horticulture and to gardening in general.

It was voted at the convention in New York last year that in future the ladies were to be invited to attend the conventions, so the ladies accompanying members will be welcome at the meeting.

Wednesday Evening. The banquet will be held at Horticultural Hall to which ladies and all friends of the members will be welcomed. At this writing final plans have not been completed for the banquet, but the price of the dinner tickets will be nominal. Those intending to attend the banquet will notify David Rust, Horticultural Hall, Philadelphia, Pa., at their early convenience, stating how many tickets they wish to reserve. Early application for tickets will materially aid the local committee in completing their final arrangements.

Thursday Morning (December 10). A bowling tournament will be provided for the men. There will be no team bowling; prizes will be offered for individual scores. During the bowling tournament a shuffle board contest will occur for the ladies for which

prizes will also be provided.

Thursday Afternoon. Will be reserved for visits to the various growing establishments and nurseries about Philadelphia, many of the local firms having extended invitations to the gardeners to visit their establishments. Provision will be made by some of the firms to entertain gardeners, not interested in bowling, during the forenoon of that day also.

The Hotel Walton, situated directly opposite Horticultural Hall, will be the headquarters of the association during the convention. Accommodations can be obtained at this hotel at moderate rates.

The committee invites exhibits of novelties, specimen plants and cut flowers. Same should be expressed, prepaid, to National Association of Gardeners, care of David Rust, Horticultural Hall, Broad and Locust streets, Philadelphia, Pa. The association's certificate will be awarded to meritorious exhibits.

Further particulars of the convention can be obtained by addressing the local committee at Philadelphia, or M. C. Ebel, secre-

tary, Madison, N. J.

The following new members have been added to our roll: James Duff, W. A. Furmange, W. J. Paget, D. H. Von Vottger, Frank Maybury, James H. Vanzant, Washington, D. C.; Paul J. Zalesky, Urbana, Ill.; Kenneth McLean, Bar Harbor, Me.; Valentine Maternonski, Portchester, N. Y.; Frederick W. Sparks, Gold, Ill.; David W. Slade, Menlo Park, Cal.; Eugene B. Burgle, Mare Island, Cal.; John M. Daly, Menlo Park, Cal.; R. T. Beers, Cromwell, Conn.; H. Morgan, Hartsdale, N. Y.; T. J. Morris, Irvington, N. Y.; Frank C. Tesar, Woodbine, N. J.; James P. McLennan, Lenox, Mass.; Albert E. Troke, Sharon, Pa.

## AMONG THE GARDENERS

A new orange house has just been completed at Faulkner Farm, Brookline, Mass., the estate of E. O. Brandegee. W. N. Craig, superintendent.

W. N. Craig lectured before the Gardeners' and Florists' Club of Boston on November 17 on "The Gardener and His Profession."

H. Marschke, formerly of Tarrytown, N. Y., is now in charge

of the R. M. Gillespie estate, "Forest Lodge," North Stamford, Conn.

George F. Shaw, for the past seven years superintendent of the G. W. Wickersham estate, Cedarhurst, N. Y., recently resigned his position.

Charles McCabe, formerly with Walther Luttgen, at Bethol, Conn., has accepted the position as gardener to W. E. Schall, New London, Conn.

It is reported that Mrs. George D. Widener has purchased some additional property at Newport, R. I., on which an extensive range of glass is to be constructed.

The sympathy of the gardener friends are extended to Robert Hunnick, of Newport, R. I., on his recent bereavement in the loss of his wife, Jane Carr Michael Hunnick.

W. D. Robertson, formerly superintendent of the Benjamin Stern estate, Roslyn, N. Y., has accepted the position of superintendent on the F. W. Woolworth estate, Glen Cove, N. Y.

William Kleinheinz, superintendent of the P. A. B. Widener estate, Ogontz, Pa., was re-elected president of the Chrysanthemum Society of America at its annual meeting held in Indianapolis, Ind., on November 7.

H. F. Smith, who is superintendent of the gardens of Percival Roberts, Narberth, Pa., is convalesing from a serious illness. He was moved to his own home on November 11 after a two months' stay in the hospital.

The many friends of Lester Ortiz, superintendent of the W. P. Bliss estate, Bernardsville, N. J., will be pleased to hear that his health is again much improved, and that he is now rapidly recovering from his recent serious illness.

Thomas Page, superintendent of "Brookside Gardens," Great Barrington, Mass., was the successful competitor for the Chrysanthemum Society of America's silver cup for the best twelve blooms, long stems, in foliage, at the Indianapolis show.

In the greenhouses of E. S. Webster, Chestnut Hill, Mass., William Downs, the superintendent, has a beautiful display of the bright winter blooming Begonia Mrs. Heal. The plants are in eight inch pots, and are large, bushy specimens.

Robert Fords Petric, gardener to Dr. Millspaugh, Paterson, N. J., was married on October 30, in New York, to Jeannette Wilson, daughter of Mr. and Mrs. George Wilson. The bride's father is superintendent of the R. J. Taylor estate, Jericho, L. I.

Frank MacNicoll, head gardener to F. B. Simpson, Empire City Farms, Cuba, N. Y., was married on the 7th of October to Miss Agnes Grant Johnstone at Warkworth, Ont. The bride is a native of Dundee, Scotland, where Mr. MacNicoll met her on a visit abroad two years ago.

Charles Sander, who has charge of Professor C. S. Sargent's estate, Brookline, Mass., has a wonderful display of Nerines this season. In addition to all the known named varieties he has thousands of seedlings, many of which have flowered and they include some grand sorts.

William Plumb resigned his position as Superintendent of Floriculture of the Panama-Pacific Exposition, California, on November 1 to accept a position as manager of the estate at Ingenio "Santa Gertrudis" Banaguises, Cuba, for which island he sailed the early part of the mouth.

Stephen Dombrosky has been appointed superintendent of the Benjamin Stern estate, Roslyn, N. Y., to succeed Mr. Robertson, Mr. Dombrosky was formerly superintendent to the late J. Pierpont Morgan, Highland Falls, N. Y., being succeeded by Alexander MacKenzie, the present superintendent of that estate.

William Vert, gardener to Howard Gould, "Castle Gould," Port Washington, N. Y., was successful in carrying off six firsts, one second, and one third prize at the annual show of the Chrysanthemum Society of America held in Indianapolis. These prizes were won in open classes which included competition by commercial growers. Mr. Vert must be credited with quite an achievement considering the distance that his flowers had to be transported.

Sabin Bolton, who has charge of the Heinze greenhouses, Pittsburgh, Pa., has had a grand show of chrysanthemums in his fine block of houses, some thousands of plants, embracing all types are included. The public have had the privilege of inspecting the display, and have availed themselves of it in large numbers.

We regret to report the practical closing up of the beautiful Proctor Estate, Topsfield, Mass.' All the stock in the greenhouses has been disposed of. The fruits, plants and flowers from this noted establishment have won many gold and other medals at the Boston Shows. The arboretum alone covers some three hundred acres, and is the only patch of the three thousand acre estate likely to be used for some years. James Marlborough was in charge of this fine estate. Some photographs of the rock garden appeared in the convention number of the Chronicle.

## ROYAL HORTICULTURAL SOCIETY.

The following communication has just been received by the committee appointed at the meeting of the National Association of Gardeners, held in Boston August last, to draft suitable resolutions conveying the sympathies of the organization to the European horticulturists:

Royal Horticultural Society,

Westminster, London, England.

Nov. 3, 1914.

Dear Sirs:—The council of our society are very grateful to you and to the National Association of Gardeners for the kind and brotherly sympathies which you extend to us and the other gardeners of Great Britain and elsewhere in the present time of intense strain and distress.

May we hope that when the time comes for the reinstatement of the Belgium horticulturists we may receive your active co-operation and financial support. Our society will start a fund of help when the right time comes; but that time we grieve to say is not yet.

With brotherly greetings to our fellow gardeners in

the States, I am,

Yours very truly,

W. Wilks, Sec'y. R. H. S.

By order of the President and Council of the R. H. S.

## BRITISH GARDENERS' ASSOCIATION.

London, N. W., September 29, 1914.

To the National Association of Gardeners.

The members of the British Gardeners' Association send their cordial greetings to you, in reply to the inspiring message you recently sent.

We shall be only too happy to do all in our power to help you in the co-operative movement you are inaugurating in the United States, and await your further suggestions.

At the present time our country is shaken by an unfortunate conflict of arms, but we are confident that the future for horticulture, the world over, is very bright.

We wish the N. A. G. the greatest possible success in

the work they have undertaken.

With all good wishes,

British Gardeners' Association,
CYRIL HARDING,
Gen'l Secy.

## CHAS. H. TOTTY MUCH IMPROVED.

The news of Charles H. Totty's continual improvement will be received with cheer by his many friends in horticultural circles. The latest reports received indicate that it will not be long before Mr. Totty will be able to be about again and attend to his business as usual.

Mr. Totty's illness came on him very suddenly. Ailing on Wednesday the fourth inst. he nevertheless felt able to attend the American Institute flower show in New York, on the afternoon of that day, but on Thursday he found it necessary to remain at home, suffering from what he at the time believed to be nothing more than a strain of the muscles. The pain increased and his physician was called in later on that day, and on Friday, after an examination by a specialist Mr. Totty was removed from his home in Madison, N. J., to the Overlook Hospital in Summit, where immediately after his arrival he underwent an operation which disclosed that he was suffering from appendicitis in an acute form; also, that his condition was very grave. By the following Sunday Mr. Totty commenced to show marked improvement, and hopes of his recovery were entertained. He has continually gained in health since then and is now well on the road to recovery.

Mr. Totty has been the recipient of many messages from numerous friends, wishing him a speedy and complete recovery and that his familiar face may soon be

seen again where horticulturists congregate.

## MEETING OF THE NATIONAL FLOWER SHOW COMMITTEE.

The National Flower Show Committee held a meeting in Philadelphia, November 11 and 12. It was decided to lease Convention Hall, in which to hold the Flower Show in 1916.

Considerable discussion took place regarding the premium list. A list was provided for, the total value of which will be \$15,000. Liberal apportionments to the different societies were made, the same to be contingent upon the usual conditions as to active cooperation. The premium committee was given authority to prepare a preliminary schedule on the basis thus determined, all special prizes being considered as part of the total valuation. A resolution was passed authorizing the secretary to raise a guarantee list to amount to \$10,000. The secretary was authorized to sell space for trade exhibits at the show, upon the usual basis of compensation for his services. The matter of the official programme was left in the hands of the local executive committee.

Wm. Kleinheinz spoke of the thought he had given to the show and had every confidence in its success. He did not consider Convention Hall too far from the center of the city. He promised to support the show in every way he could, and said he would exhibit on a large scale, and that every private gardener around Philade'phia would also exhibit.

John A. Dodds expressed his confidence in the success of the show, and said that he would make a large exhibit and lend his assistance in any direction required.

Thomas Logan spoke for the private growers and promised their support, also his time and assistance in an effort to make the show a success.

David Rust, secretary of the Horticultural Society of Pennsylvania, expressed his satisfaction with the proposed location of the show, and predicted a successful outcome. His society, he said, was ready to-assist, and was awaiting definite information as to arrangements before launching into the work of preparation.

Chairman Asmus thanked all present for the interest they had shown in the undertaking. The National Flower Show Committee, he said, would at once appoint the chairmen of the various committees to handle the

work of preparation for the show.

It was decided that the exact dates of the show would be announced later.

John Young, Secretary.

### AMERICAN ASSOCIATION 0F PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. S. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

### ASSOCIATION NOTES.

For the benefit of members who have joined the Association during recent years, following is the list of bulletins in pamphlet form which have been published from time to time and which

can be secured from the secretary:

No. 1, 1906 | Floral Decorations in Parks or Squares.

No. 2, 1907 - Pruning; Moving Trees; Oiled Roads; Winter Sports.

No. 3, 1907 Water Gardens: The Herbaceous Garden: Bulbs; Playground Management; Cement Concrete Construction.

No. 4, 1967 Construction of Roads, Drives and Paths: Evergreens for Parks; Fertilizers.

No. 5, 1909—Lighting; Plantations; Weed Killing; Park Signs; Surfacing Playgrounds: Gardeners; Cinder Walks, No. 6, 1910 - Street Trees; Policing.

No. 7, 1911—Organization of a Park Commission; The Duties of a Park Superintendent; Park Music; Park Statistics.

No. 8, 1912—Park Seats; Park Rules; Drinking Fountains; Garbage Collection; Parks East and West.

No. 9, 1912 - Lawn Mowers; Crosscutting on Lawns; Destruc-

tion of Lawn Weeds; Lake Weeds.

No. 11, 1914-Insects Injurious to Shade and Ornamental Trees. These pamphlets are made up of comments on the subjects mentioned and other sundry subjects by members from all different points of the country and are interesting side lights on the questions discussed. Members at the time of publication were supplied, but new members who desire copies may secure such as they desire from the sceretary without cost, simply remitting sufficient postage on the basis of two cents per pamphlet. The secretary has on hand a liberal supply of Nos. 5, 6, 7, 8 and 9 with a limited number of the others.

The secretary also has on hand a large supply of copies of the following convention proceedings which might be of service to members who have joined since: Minneapolis, 1908; Seattle, 1909; Harrisburg, 1910: Kansas City, 1911, and Denver, 1913.

These booklets contain many valuable papers and discussions, which are of real practical value. Members desiring copies of any or all of these can secure the same by simply remitting postage at two cents per copy.

The proceedings of the Newburgh-New York convention will be off the press and in the members' hands before the holidays, also the membership roster and revised by-laws.

On account of the fact that no stenographic report was made of the last convention, the new secretary had a task before him in preparing the proceedings from memory and odds and ends, and unfortunately many valuable remarks and comments brought out in discussions were not recorded and will not appear.

An error in our Bulletin No. 11 is called to our attention by C. G. Heuston, Dominion Entomologist at Ottawa, Ontario, which

should be noted by our members.

Mr. Heuston states: "In reference to the Small Ermine Moth, Hyponomeuta Padellus from Saskatoon, specimens sent in by Mr. H. H. Browne on examination proved to be the common Cherry Tree Tortrix, Archips cerasavorana Fitch. I am pleased to have this cleared up and to know there is no ground for the supposition that this serious pest has been introduced into this

Reference to this moth appears on page 17 of our Bulletin No. 11, "Insects Injurious to Shade and Ornamental Trees," and members should cancel the reference on their copies, as the secre-

tary has done in all copies on hand.

The secretary is pleased to announce that the members are responding nicely to the call for prompt payment of dues, that all of the old bills as well as the new ones have been paid and the Association does not owe a dollar and is now on a cash basis.

This is as it should be and the officers do not propose during the current year to incur indebtedness beyond the amount of the available revenue.

Mr. John Dunbar, of Rochester, who was elected to honorary membership at the Newburgh session, in a letter to the secretary acknowledges his selection, expressing his surprise and appreciation. Mr. Dunbar has requested that he be carried both as an honorary and as an active or senior member, in order that he

may pay dues and contribute to the support of the Association. This is also the case with our old friend C. M. Loring, formerly of Minneapolis but now at Riverside, Cal., who carries double membership in order to be a voting and contributing member.

The secretary would like information as to the correct address of Bernard F. Rifkin, who became a member at the Boston session in 1912 and has been carried on our roster as Superin-tendent of Parks at Reading, Pa. Another of our members, Wm. I. Hoch, is superintendent at Reading, and states that Mr. Rifkin has never been connected with the park department of Reading and is not a resident of that city. Can some member give the secretary a little light on the subject?

As a number of members of the Association who are not actively engaged in park work at present are in doubt as to the status of their membership, a statement of the substance of our laws in this regard is in order.

Our laws provide that active or senior members who have been out of official service for more than two years must notify the Association and thereafter be classified as associate members unless by special action in convention. If at a later date they return to public life they may be re-instated to senior membership upon application. Associate members, whether in or out of public service, can retain their membership indefinitely, unless dropped by action of the Association in convention.

The official membership roster of the Association is to be published shortly and the secretary is anxious that it be as nearly correct and complete as possible. If the address on the wrapper of the magazine is not complete, if your title is wrong or your name misspelled, kindly notify the secretary at once, or else do not complain if the roster is in error.

### PARK DEPARTMENT PERSONALS.

Past President W. H. Dunn, who missed the New York convention, is in business for himself at Kansas City, having resigned as superintendent of the Kansas City system. Mr. Dunn is now working on a city plan for Paris, Tex., and is consulting landscape architect for a number of small cities of the South and Middle West. He says he will sure be with us at the San Irancisco convention and may possibly be back in public park work by that time.

Henry K. Eckert, Superintendent of the State Reservation at Niagara, who was elected to membership at the Newburgh convention, writes: "I appreciate the honor conferred upon me in electing me a member of this great association and trust I may have the pleasure of meeting some of the members, if not all, at the San Francisco convention in 1915."

The thirtieth annual report of the Niagara Reservation, just issued, contains a history of the reservation and is a most interesting document. Mr. Eckert will be glad to forward a copy of

this book to any of our members who desire it.

L. P. Jenson, landscape architect at Busch Place, St. Louis, writes his regrets at having missed the New York convention, as it is the first one he has missed in five years. Mr. Jenson has been busy on some extensive concrete road construction and later on will submit an article on this subject with pictures showing the work he has been doing. He will also later contribute for these columns an article on "The Value of Native Birds in Parks," which should prove interesting.

R. C. Driver, for sixteen years past secretary and superintendent of the Lynchburg (Va.) Park and Forestry Commission, has decided to try and locate in some larger city where his wide range of experience can be put to better use. Mr. Driver will sever his connection with the Lynchburg department on January

Ralph R. Benedict, formerly construction engineer at Kansas City, who will be remembered by those who were at the Kansas City convention as the active young man who attended to so many details of entertainment, is now filling the shoes of Mr. Dunn under the title of Assistant Executive Officer. Mr. Geo. E. Kessler as landscape architect is still with the department, but otherwise the commission and executive force at Kansas City

has completely changed since our most successful convention in that city in 1911.

Andrew Balmer, for several years Superintendent of the Vancouver (B. C.) Parks, but disengaged for some time, has, through the agency of the secretary's office, been assigned as landscape gardener at the Washington State Reformatory. Members who attended the Boston convention will probably remember Mr. Balmer's collection of photographs which he displayed, showing the big trees of Stanley Park in Vancouver.

Frank C. Hargett, of Frederick, Md., who has been doing excellent work in the operation of educational gardens in his native city, desires to broaden his field of usefulness and is anxious to become assistant superintendent of the park system of some metropolitan city. Mr. Hargett has made a splendid record at Frederick and is vouched for by F. L. Mulford, of the U. S. Department of Agriculture, and Geo. W. Hess, of the U. S. Botanic Gardens at Washington, D. C.

Laurie D. Cox, landscape engineer for the Los Angeles park department for many years, has severed his connection with that department. Mr. Cox is a Bostonian and attended the recent Newburgh convention, but at that time did not make known his change of plans. Without definite information on the subject, we are of the opinion that Mr. Cox expects to go into business for himself.

## W. H. COLDWELL PRESENTED WITH LOVING CUP.

Without an inkling of what was to occur, William H. Coldwell was recently surprised at his camp, "For-get-it," on Stormville Mountain, opposite Newburgh, N. Y., by the appearance of President Gustave X. Amrhyn, James B. Shea and William J. Zartman, a committee of the American Association of Park Superintendents, accompanied by Mayor John B. Corwin, Park Commissioner William Cook Belknap and E. C. Ross, of Newburgh. Earlier in the month Mr. Coldwell had been asked to entertain a few guests for the week end at his camp and to designate a convenient time to have his friends visit him.



LOVING CUP PRESENTED TO WM. H. COLDWELL BY HIS FRIENDS IN THE AMERICAN ASSOCIATION.OF PARK SUPERINTENDENTS.

As the party was assembled in the evening at the conclusion of dinner, Mr. Shea "sprang the surprise," when, with well chosen words, he presented Mr. Coldwell with a handsome loving cup, the gift of his many friends in the American Association of Park Superintendents, in commemoration of their cordial reception at Newburgh last August, and in appreciation of the indefatigable services Mr. Coldwell rendered in connection with the 1914 convention. Mr. Shea was followed by the other mem-

bers of the committee, who joined in thanking Mr. Coldwell, and the officials of the city of Newburgh, for the genial hospitality that the association met with during its stay in their city; to which Mr. Coldwell and the others present responded fittingly.



WILLIAM H. COLDWELL.

William H. Coldwell, who numbers his friends in every city from the Atlantic to the Pacific, was born in Newburgh in the year 1863. Graduating from the public schools of that city, he entered the machine shops of the Coldwell Lawn Mower Company and began his education in lawn mower building at the very bottom and gradually worked his way up. When he gained the knowledge of the construction of lawn mowers he engaged in the selling end of the business and for some years represented the company on the road, during which time he accumulated a host of friends throughout the country. On the death of his father some eight years ago Mr. Coldwell became president and general manager of the Coldwell Lawn Mower Company, which office he occupies today.

It is said that the hobby, outside of directing the affairs of his company, from which Mr. Coldwell derives most pleasure is the gardens which surround his home. He there seeks much of his recreation and enjoys working among the many rare plants and flowers that are planted in his home grounds.

## PARK INSTITUTE OF NEW ENGLAND.

Nineteen park men from eleven cities in New England met on October 22 at Hartford, Conn., to organize for the study and discussion of park and play ground problems. The purpose of the organization, which is named Park Institute of New England, is set forth in the following resolution presented by George A. Parker, Superintendent of Parks of the city of Hartford, which was adopted by the meeting:

We, citizens of the different cities of New England, interested in municipal parks and playgrounds, and desirous of making available to each of us and to the public such knowledge and experience, arising from the methods and management of parks and playgrounds by cities, in order that they may give increased opportunity for the growth and development of children and young people, and and to the comfort and happiness of grown ups, do agree to form ourselves into a Park Institute from New England, and to abide by the following conditions:

1. One member shall have entire charge of the affairs of the Institute, to be known as its manager, who may make assessments as needed, arrange for meetings, and do whatsoever work as in his judgment is necessary. He is to serve without compensation, and

for one year or until his successor is chosen, to be elected at the first meeting held after the first of January each year.

2. There may be six meetings each year, to consist of addresses, papers, theses and discussions which may be typewritten and sent to each member as requested,

3. Candidates for membership may be proposed by any member, the vote being taken by letter, three negatives to reject. Each member at the first meeting to prepare a thesis upon some subject

4. Each member agrees to prepare papers and addresses on any topic that may be assigned him by the manager, or to lead or take part in the discussion, to serve on committees of investigation or other matters as the manager may direct.

5. The manager may drop from the role those members who

fail to attend three consecutive meetings.

6. As the purpose of these gatherings is for the serious consideration and formulation of the work and service of parks and playgrounds, all social affairs and banquets are to be discouraged and not to prevail until after the meetings for the presentation of subjects and their discussion have adjourned.

G. H. Hollister, superintendent of Keney Park, Hart-

ford, Conn., was elected to be the first manager of the

At the meeting the subject of winter recreations was discussed. Charles P. Lass, Superintendent of Parks, Springfield, Mass., submitted a report of what that city has done in the way of municipal dancing in one of its playgrounds and what it hoped to accomplish this winter.

H. W. Hearle, now also of Springfield, Mass., gave a talk on "Tree Walks or Talks." A. V. Parker, Superintendent of Parks, Worcester, Mass., and W. E. Fisher, of Franklin Park, Boston, Mass., discussed their experiences with toboggan slides and tobogganing. All of the subjects were generally discussed by the others

The next meeting of the Institute will be held about the middle of December, although the exact date and place have not yet been fully decided on

## Public Parks Recreation System of Minneapolis

By F. C. BERRY, SUPERVISOR.

The Playground and Recreation system of Minneapolis is being developed by both the School and Park Boards.

The School Board is aiming to establish playgrounds in the school yards which are especially adapted to the use of small children.

The Park Board is undertaking the task of so equipping certain park areas as to provide for public recreation in its broadest sense.

The influence of the playground movement was first felt in Minneapolis some nine years ago. Since then the

growth has been gradual and steady.

A study of the evolution of recreation facilities in their relation to public parks will show a logical division of four groups of interests which require a varied equipment and management, as outlined by Edward B. De Grout, General Secretary, Playground Association of Chicago.

"Group one.—Seasonable sports; skating, tobogganing, hockey, ice boating, rowing, sailing, canoeing, bathing and

"Group two.—Traditional games; baseball, rugby foot-

ball, soccer football, golf, tennis, etc.

"Group three.—Traditional track and field athletics; running track, high jump, pole vault, broad jump, shot put, discus, hurdle racing, etc.

"Group four.—The modern supervised playground; gymnastic and play apparatus, sand boxes, wading pools, modified baseball, basket-ball, volley-ball, hand-ball, quoits, swimming pools, field houses containing halls, club rooms, gymnasiums, bathing and dressing quarters."

This article will deal with the Park Recreation System

of Minneapolis under the foregoing grouping.

## SEASONABLE SPORTS.

The city finds itself especially favored by nature in a liberal distribution of small lakes within the city limits. From the standpoint of water sports, these lakes are invaluable. Numerous sailboats are made continuous use of during the breezy summer days. Storage racks and lockers at points conveniently distributed along the shores of the park lakes are erected each year for the great army of canoeists who are thus provided with all facilities for canoe care. 1,506 privately owned canoes furnished recreation for thousands during the past summer. At Lake Calhoun and Lake Harriet are Boat Houses where boats or canoes may be rented. Three launches make regular trips; two of them running on Lake Harriet and the other on Lake Calhoun, Lake of the Isles and Cedar Lake which are all connected.

Four bath houses, three of which are located on lakes and one composed of two concrete pools through which flows a small stream, are open from June 1 to September 15. During the sultry days of summer the capacity of these baths is taxed to the utmost.

The Calhoun bath house, situated on the north shore of Lake Calhoun was completed in 1912. The building is of monolithic concrete construction, dry mixture. The dressers are built of steel frames, expanded metal and plaster and the lockers are of steel and standard size.

The beach, which is 1,200 feet long and 200 feet wide, is built from sand pumped out of the lake.

The building contains:

1. The men's department with 1,036 lockers.

2. The women's "
3. The boys' "
4. The children's " 294 356

84

The first three have shower baths and inside toilet accommodations. Well arranged suit rooms are provided for each of the three departments where bathing supplies may be obtained by the bathers as they enter the walled courts containing the dresses and lockers. The courts are open overhead being directly exposed to the sun which is an extremely valuable sanitary feature. A cashier's office, a refreshment counter and a well equipped emergency hospital room complete the equipment. The basement contains a heating plant and a pump and compression tank delivering drinking water from a deep artesian well to seven drinking fountains distributed through the building and the terraces.

All accommodations are free except that a nominal

charge is made for bathing supplies.

Life guards are on duty on the beach at all times and safety ropes are placed at depths of three, and four and one-half feet.

Diving platforms and towers are erected outside the safety ropes at depths of from seven to twelve feet. These are furnished with spring boards.

The diving facilities have proven very popular.

The bath house and beach fills a long-felt need, as was demonstrated by the instant popularity with which it was received by the people of the whole city. Interest in swimming quickly increased and was especially noticeable on the part of the girls and women. The total cost of the Calhoun Baths, including the construction of the beach, was \$82,000.

The other lake bath houses, though less pretentious and well equipped, offer excellent bathing facilities and are patronized to their capacity.

About fifteen thousand bathers can be accommodated on one day at all the bath houses. The total bath attendance for 1913 was 291,161, and for 1914, 320,726.

The picnic grounds at Lake Harriet and Minnehaha Falls provide picnic accommodations. These grounds are also equipped with play apparatus for small children.

During the winter season twenty-six electric lighted skating rinks are provided on the lakes and in the neighborhood parks throughout the city.

Warming houses, some of a temporary nature, furnish comfort and checking privileges for the skaters.

A double toboggan slide, constructed of two wooden chutes on a trestle, extending from a high bank out over the surface of Lake Harriet, was built a year ago. Electric lights make the slide a popular evening attraction.

A long slide for bob-sleds is kept iced in Powderhorn Park, as well as a steep incline, suitable for toboggans, in

Columbia Park.

Skiing is a favorite pastime for many of Scandinavian descent. The hills of Glenwood Park offer excellent inducements for this vigorous sport.

Ice hockey is a favorite winter game, especially for boys and young men. Nine hockey rinks are constructed and maintained throughout the skating season. Some of these rinks are lighted so that evening play is possible.

The Department of Playgrounds conducts an amateur hockey league of eight teams. The games are played in the evening by artificial light.

### TRADITIONAL GAMES.

Baseball is the leading summer game. The parks now contain twelve fully equipped baseball diamonds which amateur teams may play on at any time by securing a permit and conducting themselves in accordance with the regulations governing conduct and play.

During the autumn season these same fields are made suitable for football by erecting goal posts and marking with lime. Permits are issued as for baseball, and the games are controlled by park police supervision.

Soccer football is played by all the grade school teams and by an amateur league made up for the most part of players who learned the game on the "other side."

The university has also taken up the game. Soccer can hardly be said to have become generally popular here as yet, although each year sees increased interest.

Tentative plans have been made for a public golf course in Glenwood Park, but as yet nothing definite has been done.

In natural advantages this park offers an excellent tract for golf, and is only two miles distant from the central business district.

Tennis courts are provided to the number of thirtythree. More than half of these are clay courts, with backstops, and are open to the public at all times, subject to certain regulations.

Tennis has taken its place as a most popular form of recreation for the business man. Women and girls are also ardent devotees. Requests for additional courts are constantly being presented to the board. I believe that in the near future it will be necessary to light the courts and make play after dark practical.

## TRACK AND FIELD ATHLETICS.

Interest in this branch of sport cannot be said to be very great. Some emphasis is laid on competition in athletics during the summer season, under the direction of playground instructors. Inter-park track and field meets are held in which large numbers of boys and girls compete, but the interest is not sustained enough to result in regular practice. Equipment in the form of jumping pits and rings for discus throwing and shot putting has been placed in most of the larger playgrounds. At present, however, there are no large athletic fields containing a quarter-mile running track and standard equipment for track and field athletics.

A plan for a large stadium of such a character has been prepared by Superintendent Wirth, but owing to a lack of funds, nothing further has been accomplished.

## NEIGHBORHOOD PLAYGROUNDS.

During the past season the most efficient development in supervised play and organized activities thus far was reached.

Nine playgrounds, containing a more or less complete equipment of gymnastic and play apparatus, sand boxes, swings, see-saws, merry-go-rounds, slides, basket ball, volley ball and modified baseball, were supervised by a corps of nineteen playground instructors during a period of two and one-half months.

On six of these grounds the hours of supervision were from 1.30 to 5.00 p. m. and from 6.30 to 9.00 p. m.

The other three grounds had additional supervision. The work consisted of instruction in athletics, gymnastics, group games, basket ball, volley ball, baseball, aquatics, tennis, soccer, singing games, folk dances, sewing and story telling.

For purposes of competition the boys were divided according to height into three grades. Each playground was represented by a team in baseball, basket ball, volley ball, track athletics and gymnastics in each of the three grades and competed with the teams of the other playgrounds for the championship. The girls competed in the same way in basket ball and volley ball.

Meets were held in athletics, gymnastics and swimming in which teams from all the playgrounds entered.

A league of eight church teams was organized in conjunction with the work at the North Commons Playground. A similar league made up of teams from the railroad shops was formed at the Longfellow Field Playground. These leagues brought a large number of individuals into an active form of recreation.

A final Park Playground Festival was held August 14 in the National Guard Armory in which about six hundred children took part in an exhibition of all the

phases of playground activities.

The policy of the supervisor has been to carry on the activities in such a manner that large numbers of boys and girls may become interested and take part in some form of out-door recreation. With this end in view competition is devised which emphasises the team or large group as a unit and not the individual.

At present Logan Park is the only park having a field house containing an assembly hall, committee rooms, shower baths and dressing quarters. This building is made good use of by the neighborhood for meetings and entertainments of a varied character. Dancing is allowed

on two evenings of each week.

Exclusive of tennis courts, baseball and football fields, the park system now provides seventeen playgrounds, nine of which are well equipped for standard supervised play activities. Several new unimproved sites have recently been secured in thickly populated districts where playgrounds are especially needed. The improvement of these sites and the acquisition and development of more grounds will soon serve to bring the advantages for recreation into closer touch with a large proportion of the population.

(Continued from page 251.)

The economic value of this work, as is realized today, is of much importance in every town where it takes root. The value of a taste cultivated in the direction of making things grow in a small way tends at once to improve the appearance of a neighborhood. The florists' shop never causes a detriment to a neighborhood, but is the example of what will make the homes of a community look better.

The past year the Committee on School Gardens has followed up its limited work of suggestion to school trustees and others in every city, town or village where a member of the Society of American Florists is located, by mailing to each official school body a well illustrated circular letter, calling attention to this work, and appreciation of this call is acknowledged by many.

One of the manufacturing towns which were built on the sand dunes or waste places at the south side of Lake Michigan is Gary, and the leading men of the cosmopolitan city of New York have been out there and came back home to tell among other things what school gardening and flower growing do to break up the old time barrenness of a manufacturing city. This work over the country, especially in the larger cities, like Cincinnati, St. Louis, Cleveland, Chicago, Los Angeles, Bellingham, Worcester, Toronto, Baltimore, Pittsburgh, Buffalo, Syracuse, Minneapolis, Atlanta, Louisville, Indianapolis, Grand Rapids, Kalamazoo and so on, gives merely an idea of what is being done in central centers of large population. The work is aided by the seedsmen in many places. Roses, Dahlias, Asters, Gladioli, Cannas, Colcus, Geraniums, Sweet Peas, etc., are an evidence of the increasing appreciation by the mass of American families of flowering plants in the odd corners and waste places. Example and training are effective ways which lead and elevate home taste. A development in the use and growth of flowers is nowhere more apparent than the roofs of the great tenement buildings or apartment houses on Manhattan Island the boxes of flowers tell their own story of the yearning in human hearts for pretty things, and the florists and seedsmen of the world are the trades that help uplift humanity.

Your Committee's advice to all the people is-keep right on

the job.

New Zealand.

Respectfully, BENJAMIN HAMMOND, MICHAEL BARKER, IRWIN BERTERMANN, GUST. X. AMRHYN, LEONARD BARRON.

## PRIZES OFFERED FOR PHOTOS. OF LARGEST TREES.

Foresters of the United States are interested in the announcement recently made by the American Genetic Association that two prizes of \$100 each have been offered for two photographs ore of the largest tree of a nut-bearing variety in the United States, and one of the largest broad-leaf tree which does not bear edible seeds. In the first class, for example, are included trees such as chestnut, oak, walnut, butternut, and pecan; and in the second, trees such as elm, birch, maple, cottonwood, and No photographs of cone-bearing trees are wanted, tulip poplar. since it is definitely known that the California bigtrees have no rivals among conifers. At a later time the association may take up the same question as between the various kinds of conifers, as pines, spruces, firs, cedars, and cypresses.

The purpose of the competition, as stated by the association. is to find out in what regions the native trees attain their largest growth, and under what conditions they thrive best. these large trees are located and the measurements authenticated, the association hopes that it may be possible to secure seeds, cuttings, or grafting wood from thrifty trees in the region where they grow, to see whether finer specimens may be propagated in other parts of the country. It is hoped in this manner to get some particularly choice strains of native trees established in

regions where good specimens are not now found.

It is assumed by the association that seed from the region where the largest trees grow ought to produce larger and stronger trees than from regions where only small trees are found. By finding out where the large trees are and then planting seeds from them in other locations, the association hopes to demonstrate the practical value to horticulture and forestry of the laws of heredity. Now that reforestation is becoming a pressing problem, the question of seed trees which will produce particularly good offspring is naturally coming to the fore.

Other influences, of course, will have a bearing on the subject. and the results of the investigation may help to settle the question as to whether trees can be acclimatized. Even if they cannot be, there may be eases where trees in a new environment may make better growth than the best in their native range. This is said to be true of certain of the Australian eucalypts, and of the Monterey pine which does not amount to much in its native location in California but has proved of great value in

The federal forest service has conducted some studies along this line and has discovered, for example, that the Douglas fir of the Rocky Mountains and the Douglas fir of the Pacific Coast, while the same species, have different characteristics and will produce trees like the parent stock, modified somewhat, however, by environment. For example, if the two forms are planted together, during the earlier period of its life at least the Pacific Coast form will make a larger and stronger growth than the Rocky Mountain tree, provided it is not affected by adverse local conditions.

Several other questions, such as the climatic requirements of trees grown in different localities, will, of course, enter into the final solution of the problem. It has been found in Germany, for example, that the Pacific Coast form of Douglas fir is not as hardy as the Rocky Mountain form, which has to endure in its native habitat severe extremes of temperature, and German foresters have been working to discover a strain of Douglas fir which will combine, as far as possible, the hardiness of the Rocky Mountain form and the large size of the Pacific Coast form.

Some authorities go so far as to say that even the ingenuity and perseverance of man are unable to induce trees to change their habits far enough to adopt a country not closely like their

native habitat.

This fastidiousness in the habits of trees has its good and its bad sides, they say. It absolutely limits the forester's choice of trees to grow in a given region. But, on the other hand, there is practical certainty of results. If beech or spruce thrives where the average warmth and moisture of the growing season from year to year ranges between certain degrees, then wherever else the same average is found, in the northern hemisphere at least, the forester may plant beech or spruce, whether or not they are already there, with confidence that they will flourish.

The announced purpose of the Genetic Association is to bring about the dissemination of seed or stock of the best specimens, when found, to demonstrate, if possible, the value of heredity in tree growing. The contest for the \$100 photographs is announced to end on July 1, 1915, on which date, says the secretary of the Genetic Association in Washington, the offer will terminate.

### ARRANGEMENT OF NATIONAL ROSE GARDEN.

There seems to have been a misinterpretation in some quarters concerning the planting list of the Washington Rose Garden as included in the committee report read by Mr. William F. Gude at the meeting in Boston of the Society of American Florists. The lists were simply to show where the plants were located and were prepared for the information of donors and the use of

interested parties visiting the garden.

The arrangement of beds, as "yellow tea," "pink tea," etc., was tentative, but promises to work satisfactorily. The assignment to the beds was made entirely from catalog description. This was taken from the donors' catalogs where practicable, and where not, from catalogs of other reliable firms. The breaks in the beds were caused by the inability of some firms to supply all the plants they had expected to send. The varieties with what might be called "mongrel descriptions" were distributed with the color to which they were most nearly akin as far as description would suggest and space permit.

Places were only provided for teas, hybrid perpetuals and climbers, and other sorts were placed just wherever there happened to be room, as, for example, Dwarf Polyanthus, which are planted at several different points. It is intended to transplant varieties as soon as practicable after it is found they are not

properly placed in the scheme adopted.

The list must not be taken as a recommendation by the Department of Agriculture either as to adaptability or color, but merely as a record of where the different varieties are growing. The Rese Garden has not yet been under way six months, so, if course, the studies have hardly begun. It will require several observations before any conclusions can Suggestions are at all times most welcome, as it is desired to arrange the garden so as to be as instructive as possible.
F. L. MULFORD,

Landscape Gardener, U. S. Department of Agriculture. October 7, 1914.

## THE ART OF NAMING PLANTS.

Taxonomy has its place. It trains the perceptive faculties, teaches orderliness, develops judgment and strengthens reason. There is a saving grace in botany not found in most of the other sciences, and this is exercised through taxonomy more fully than through all the other divisions of botany combined.

Systematic botany furnishes to the average layman a more continuous incentive for pleasurable and inspiring contact with the

world about him it in any other sulped place in a cultural course. It may be the primitive phase, but most great botanists, at least, began at this point, thus illustrating

in their development the recapitulation theory. Systematists were never so numerous nor more active than at present, but all activity is not necssarily progress. Motion up and down may be spectacular and nothing more.

There is but one reason for the existence of the professional systematist, viz.: to make it easier for others to know plants. If we fail in this one thing we fail in all. Judging by the indifference of the multitude to our work; by the helplessness of the amateur who tries to acquaint himself with the plants he meets; by the none-too-well concealed cynicism of our colleagues in other lines, we are failing in this. Our work has been analytic and not constructive. We have dismembered organisms and held up to view their component parts. We have been looking for differences and with such amazing success that the fundamental resemblances have, for the most part, escaped our notice.

Morphology, physiology, ecology, and economic botany in its scores of applications have all gone forward by leaps and bounds, but in spite of, not by the aid of, taxonomy. Not all taxonomic work has been useless or erroneous. Keenness of observation and great powers of discrimination are not lacking. It is not so much that what has been done should not have been done, but rather that more should have been done to relate recent work to that which has gone before. Synthesis should have followed so closely upon analvsis of the elements of our flora that duplications would promptly have been discovered and the relations of each element to the other detected and stated.

We are on the eve of a new era of reconstruction. Already the pendulum is swinging back toward greater conservatism. The dismemberment of genera and the multiplication of species proceeds more cautiously. This grows out of the revitalized aim, "make it easier for others to know plants."—American Botanist.

### HORTICULTURAL FEATURES AT PANAMA-PACIFIC EXPO-SITION

Into the 65 acres of living gardens surrounding the Palace of Horticulture were set this month the enormous number of over 700,000 golden-flowered plants under the direction of Donald McI aren, the famous California gardener. These flowers will occupy sunken gardens in the main entrance facing the Tower of Jewels and in the Minor Courts of Palms and Flowers.

Mr. McLaren announces that work has begun on the final transplanting of 27,000 yellow wall-flowers, and an equal number of Spanish golden iris in the Court of Palms, which looks out upon the Palace of Horticulture. The Tower Plaza has already been planted with 200,000 yellow pansies, 100,000 yellow daffodils and 100,000 golden poppies. In the Court of Flowers, which opens toward Festival Hall, 250,000 golden poppies, 100,000 daffodils and 50,000 golden tulips will be set this week.

So that the 65 acres of flowers and plants will be kept constantly in bloom during the ten months of the Exposition, it is planned to replace this first setting with other flowers when the first cycle has lived its life. Mr. McLaren believes that three plantings will be required to keep the vast gardens in bloom. An unusual decision was made by Mr. McLaren this week to plant no palms in the Court of Palms, the space being given over to acacias, towering Italian cypresses and low-growing eugenias. The balustrade surrounding the pool will be overhung by low trailing muchlenbeckia, or maiden-hair vines.

The Exposition's horticultural gardens became international in scope this week when entries of roses from Belgium and Holland were planted in the rose gardens. These flowers are government exhibits of these two countries and are entered in the competitions, one of which has a prize of \$1,000 for a new, unnamed rose.

## A NEW BOOK ON SWEET PEA CULTURE.

In his book "Sweet Peas for Profit," J. Harrison Dick, the author, covers about every important phase which enters into the culture of that popular flower. While his treatise leans more to the growing methods for market purposes, there is, however, much contained in the book of useful knowledge to the private grower. Its chapters are devoted to the class of houses and heating facilities best adopted for the culture of the sweet pea; outdoor culture; pests and diseases; description of old and new varieties and an interesting history of the winter flowering sweet pea. The book contains many excellent illustrations. It is published by the De La Mare Printing & Publishing Company, of New York; price, \$1.50.

### DEPARTMENT OF AGRICULTURE'S CHRYSANTHEMUM EXHIBIT.

The annual chrysanthemum exhibit of the Department of Agriculture, held in the departmental greenhouses, Washington, D. C., which opened on October 29, proved to be as successful as previous exhibitions.

Some eighteen hundred plants were on exhibition, representing

more than one hundred and fifty varieties of the double chrysanthemums and one hundred and seventy varieties of the single flowers and pompoms. Although the season has not been a good one for chrysanthemums, the flowers as a whole were found to be of excellent quality and several new seedlings were shown; also some varieties which have not been seen in Washington before. It is estimated that more than twenty-five thousand people visited the gardens and greenhouses during the week of the show.

### ABSORPTION OF SALTS BY PLANTS.

Plants absorb a much greater amount of water than they ever use in building up their parts. In some cases the amount used seems almost incredible. The common mustard is said to use 900 pounds of water for each pound of dry matter the plant contains. It is well known, of course, that there is a constant influx of water at the roots and as regular an outflow from the leaves in the form of water vapor. This current of water through the plant is called the transpiration stream. This stream was formerly thought to be of service to the plant by bringing in the mineral salts used, but some investigations made by Heinrich Hasselbring has shown that the amount of mineral matter (ash) in a plant in no way depends on the amount of the transpiration stream. The transpiration from two sets of plants of the same species, one in sun and the other in shade, was measured and, though the plants in the sun gave off the more moisture, the set in the shade was found to contain the more ash. This seems to show that the absorption of mineral by plants does not depend upon the amount of water absorbed. Probably a large part of the water taken in is simply used in keeping the plant cool, just as our perspiration regulates the heat of our own bodies.-Exchange,

## **OUERIES and ANSWERS**

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.

Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

Nothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

"The article in the September 'Chronicle' Aquatic Gardening interested me, but why, may I ask, do we find so little aquatic planting on the country estates? Is it because gardeners in general are not familiar with them? My gardener frankly confesses that he does not understand their method of growing and that it is the work of a specialist. Can you recommend any practical books on the subject from which he can secure some knowledge on growing them?"-Estate Owner, Conn.

Replying to the above query, would say there are several reasons why there is so little aquatic gardening to be met with on country estates. Few landscape architects advocate it. Why? The employer has to be consulted in most instances on matters concerning his estate, and it is the bounded duty of the superintendent or gardener to carry out his orders, against his likes or dislikes. employer may object to having artificial ponds on the grounds on account of stagnant water and the mosquito nuisance, and the same where natural ponds exist; something has to be done to rid the place of mosquitoes, and if the gardener cannot convince him that they can be kept clear of, without the application of crude oil, the authorities will apply the oil, which, of course, rids the ponds of mosquito larva, as well as the fish and other insects and any plant life as well. Such action shows a lack of knowledge of plant and insect life.

There is another mistaken idea, and that is that water lilies require running water, whereas they require still water; still water is not necessarily stagnant; water with growing plants in it is oxygenized and kept clean and pure, even as trees, with the foliage, oxygenize the air we breathe.

If an employer expresses himself in favor of having water lilies grown, and his gardener hesitates, or says it requires a specialist, that man ought to be fired, such a one is not entitled to membership in the National Association of Gardeners; he may not be familiar with water lilies, or knows next to nothing of their culture, but there are as many volumes on water lilies, their culture, etc., as there are on many other subjects, as well as men ready and willing to give them the benefit of their experience. No gardener worthy of the name but would jump at the opportunity to specialize on any new plant, flower, fruit or vegetable his employer would delight in, especially when every facility is afforded to secure the de-

As to literature, there are such books as Making a Water Garden, by William Tricker; Water Lilies and How to Grow Them, by Dr. H. S. Conrad; water gardening, Nymphaea and aquatic plants are extensively treated on in Bailey's Cyclopedia of American Horticulture; also Dr. Henry S. Conrad's Thesis on the Water Lilies, the most complete work of its kind, besides many horticultural books on magazines without number.

Often the employer looks to his gardener for suggestions on new plants, trees, etc., and it behooves the gardener to be well posted on every subject and at an opportune moment to advocate certain plants. As to the simplicity of growing water lilies, nothing is so simple or easy. Yes, you say, when you know how; and you can know how if a little judgment is exercised.

Their chief needs are, water, still, not running; a rich soil, they are heavy feeders; a good rose soil will answer; sunlight and W. TRICKER. plenty of air if grown indoors.

"Can any of your readers recommend a successful remedy for ridding a badly infested house of the cattleya fly? I have tried spraying and fumigating and even cutting the fly out of the leaf, but I do not seem to be able to get the better of it. Is hydrocyanic-acid gas safe to use in an orchid house, and would this be effective?"-L. M., Missouri.

It is futile to cut the leads off the Cattleya, because a strong plant will outgrow the punctures caused by the Cattleya Fly which does so much harm in many orchid houses. Try and keep your plants strong by an even night temperature. The general run of Cattleya succeed finely in a night temperature of 55 degrees. Sprinkle a mixture of soot and lime around and under the benches every two weeks. The fly will show itself more in a dry hot atmosphere; therefore try to entice it out as it must be got out of the plant's growth to be killed. Close the house down tight and do not damp during the day. Make the pipes very hot and famigate with a strong dose of nicotine liquid, not paper, on sever successive nights, spraying the plants over once the next morning. This treatment will bring out the fly and effectively destroy it if perseverance is practiced.

W. ROBERT FOWKES, Madison, New Jersey.

"I would like to get some information on the cultivating of the blueberry, which I understand is finely grown on some of the estates in Massachusetts. They grow to perfection in our section in the wild state, but we do not seem to succeed in cultivating them successfully. Any information you can give me regarding their culture will be appreciated."-U. M., Nova Scotia.

## OF INTEREST TO ALL

## WM. E. TRICKER SETTLES IN WEST.

Wm. E. Tricker, for the past six years superintendent for the C. H. Totty establishment of Madison, N. J., recently resigned his position there to accept the position, as manager of the Vaughans establishment at Western Springs, Ill., for which place he departed from the East on November 1. Mr. Tricker was popularly known both among the commercial and private growers in the East. He carries with him their wishes for success in his new field. Mr. Tricker has had a varied and widespread experience in horticulture. He came to Madison, N. J., from England, where he was superintendent for Dr. Whiteley, Ltd., Uxbridge; previously as foreman for Thos. Rochford, of Turnford Hall, Chestnut, and Jas. Veitch & Sons, Chelsea, London. His earlier experience was gained, however, in the United States, being one of

the J. N. May and Pitcher & Mauder employees. He is a son of Dr. Tricker, the Water Lily specialist of Arlington, New Jersey. We feel sure that the Middle West has gained and we have lost, a man of excellent qualifica-

## PHILLIP J. COX CHANGES POSITION.

We have just learned that Phillip J. Cox, who for the last four years has been happily employed as sales representative for the Pierson U-Bar Company, has severed his connection with this concern and accepted a position as manager of Hitchings & Company's New York office.

Mr. F. W. Armitage, general sales manager for the company, being relieved by Mr. Cox of the direct care of this office, we understand will now divide his time between their various branch offices, in general sales and promotion work.

## ORCHIDS

We are Specialists in Orchids, we collect, grow, Import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N. J.

## WATER LILIES and SUB-AQUATIC PLANTS

Trees, bushes and perennial plants, everything for the Water Garden or artificial pond. If you are contemplating the construction of a pond write me and I will give you the benefit of my 25 years' experience. Send for my Catalog, containing the best collection of Water Cilies, Hardy and Tender, Hardy Oul fashioned Garden Flowers, Hybrid Tea Roses, Evergreen Japan Azalens, Rhododendrons and many choice Novelties. Send for Book, "Making a Water Garslen," 55 cents prepaid, WATER WASHERS THE Spreadlet Advisor N. J. WM. TRICKER, 'Water Lily Specialist, Arlington, N. J.

## HAMMOND TRACY

Gladiolus Specialist

WENHAM, MASSACHUSETTS . Вородиническия положен в потражен ченте направления в лисе в вина постоя и т. н.

## B. THE CONTROL OF THE PARTY OF THE PARTY OF THE HOLD OF THE PARTY OF VAUGHAN'S SEED STORE

Our complete Autumn Catalogue is ready. Ask for it at Chicago or New York

43 Barclay St. New York

31-33 W. Randolph St. 1139 AUROL - 180 - 18 AUROL - 18 SUPER - 18 SUPER - 18 AUROL - 18

THEREA, THESE HIS PROPORTION OF A SUBSTITUTION OF

## una camuru, a hista - an una ca camana cananasa cananasa cananasa cananasa cananasa cananasanasa HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

## D. HILL NURSERY CO.

Evergreen Specialists,

green Specialists,
Growers in America.

Bex 305 Dundee, Ill.

### SECONDET TO SUCIOLE 18, 25 OF CHERCEL 1. LECTRONICE 1. THE HUBBLE LEGERAL LEGERAL LEGERAL CONTROL OF THE HUBBLE AND THE CHERCE AND THE CONTROL OF THE CHERCE AND THE CHERCE ORNAMENTAL IRON WORK

For Lawns and Gardens.

Chas. C. Force & Son,

LET US ESTIMATE ON YOUR WANTS. Madison Iron Works, Madison, N. J.

## HARRY BALDWIN

Manufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS

18 Church St. Formonicons den 1. desm

and the state of t

NEW ROCHELLE, N. Y.

## NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists. John Young, secretary, 54 West 28th street, New York.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society. L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 342 West 14th street, New York.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

## LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. Meets first Thursday every month, Hordicultural Hall, Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Meets third Tuesday every month, Horti-cultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Meets second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Dobbs Ferry Gardeners' Association, Henry Kastberg, secretary, Dobbs Ferry, N. Y. Meets first Saturday each month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls.

Meets at Poughkeepsie, N. Y., second Wednesday every month except May and

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. J. Meets first Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass.

Meets second Tuesday every month.

·Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Paterson Park, Baltimore, Md.

Meets second and fourth Monday every month, Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Meets monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th street and Columbus avenue, New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. Meets first and third Saturday every month, October to April; first Saturday every month, May to September, Horticultural Hall.

Lenox Horticultural Society. G. H. Instone, secretary, Lenox, Mass. Meets first Saturday every month.

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary. Meets first Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society. Percy Ellings, secretary, Menlo Park, Cal. Meets second Thursday each month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Meets fourth Friday every month, Monmouth Boat Club, Red Bank, N. J.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette street.

Meets first Monday every month, Montreal Florists Exchange.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J. Meets at Madison, N. J., second Wednes-

day every month, except July and August, 8 p. m.

Nassau County Horticultural Society. Ernest Westlake, secretary, Glen Cove, N. Y.
Meets second Wednesday every month,
Pembroke Hall, Glen Cove, N. Y., 6 p. m.

New Bedford Horticultural Society. Jeremiah M. Taber, secretary. Meets first Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street, Orange, N. J.

Meets first Monday every month, Jr. O. W. A. M. Hall, Orange, N. J., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London, Conn.

Meets second Thursday every month, 38 Main street, New London, Conn.

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Meets second and fourth Tuesday every month.

New York Florist Club. John Young, secretary, 54 W. 28th street, New York.

Meets second Monday every month, Grand Opera House.

North Shore Horticultural Society. Jas. Slater, secretary, Manchester, Mass. Meets first and third Fridays every month.

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. Meets first Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society. M. J. O'Brien, secretary, Mt. Kisco. N. Y. Meets third Thursday every month, except June, July and August, at 8 p. m.; December, January and February, 3 p. m., Odd Fellows Hall, Mt. Kisco.

Oyster Bay Horticultural Society. Fred Kirkham, secretary, Glen Head, N. Y. Meets fourth Friday every month, Board of Trade, Oyster Bay, N. Y., 8 p. m.

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 711 Westbank Bldg.

Meets first Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, 497 Bradford street, Pasadena, Cal.

Meets first and fourth Friday every

Paterson Floricultural Society. Sebastian Hubschmitt, secretary, 61 Seventh avenue, Paterson, N. J.

Meets first Tuesday every month, Romaine Building, 8 p. m.

Pennsylvania Horticultural Society. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut street,
Paterson, N. J.
Meets first and last Friday every month,
Working Man's Institute, Madison avenue, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets first Tuesday every month, Horti-cultural Hall, Philadelphia, Pa., 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. Meets first Thursday every month, Fort Pitt Hotel, Pittsburgh, Pa.

Rhode Island Horticultural Society. A. C. Miller, secretary, 7 Irving avenue, Providence, R. I.

Meets fourth Monday every month, Providence Public Library, 8 p. m.

Shelter Island Horticultural and Agricul-

tural Society.
Fred Kirkham, secretary, Shelter Island,
N. Y. Meets first and third Thursdays every

Southampton Horticultural Society. William McLeod, secretary.

Meets first Thursday every month, Memorial Hall, Southampton, N. Y.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarytown, N. Y. Meets last Tuesday every month, except December, Corporation Building, Tarrytown, N. Y., 7:30 p. m. Annual meeting last Thursday in December.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y. Meets first Wednesday every month, Parish House, Tuxedo Park,

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington, D. C. Meets first Monday every month.

Yonkers Horticultural Society. Thos. Mahoney, secretary, Yonkers, N. Y. Meets first Friday every month, Holly-wood Inn, Yonkers, N. Y., 8 p. m.

Westchester and Fairfield Horticultural

J. B. McArdle, secretary, Greenwich, Conn.
Meets second Friday every month, Doran's Hall, Greenwich, Conn., 8 p. m.

## **GARDENERS DIARY**

American Carnation Society. Annual show, Buffalo, N. Y., January 15.

International Flower Show, New York, March 17-23, 1915.

### NEW YORK SHOWS.

The annual fall exhibition of the Horticultural Society of New York opened on Friday, October 30, and continued to Tuesday, November 3. As is customary, on the evening of the opening day, the members of the society visited the exhibition, and this brought out a large attendance or many of New York's well-known people. While the display of flowers was not as large as it has been at some of the previous fall shows, the quality of the exhibition, however, was of the usual high standard.

The judges were F. Heeremans, Lenox, Mass.; George Farlsham, Lenox, Mass.; Robert Cameron, Cambridge, Mass.; John H. Gratorex, Newport, R. I.; Robert E. Tyson, N. J.; Thomas Murray, Tuxedo Convent. Park, N. Y.

The prize winners were as follows:

The prize winners were as follows:

Chrysanthemum Plants. Specimen bushes in not less than 14 inch pots. Yellow 1st, Adolph Lewisohn, Ardsley, N. Y. (gard, John Panning), with variety R. F. Felton. White 1st, Adolph Lewisohn, Ardsley, N. Y., with variety Lady Lydia. Pink 1st, Adolph Lewisohn, with variety Wells' Late Pink. Any other color 1st, Adolph Lewisohn, with variety Greystone. Sweepstakes for finest and best bush plant. Society's silver cup, valued at \$100—1st, Adolph Lewisohn, with Wells' Late Pink. In not more than 14 inch pots—Yellow —2nd, Greentree Greenhouses, Manhasset, N. Y. (gard, L. G. Forbes). Specimen odd shape, not less than 4 feet in diameter, in not less than 14 inch pot. Any color 1st, Adolph Lewisohn, with variety Lady Lydia, grown in fan shape.

Shade 1st, James A. Macdonald, Flusting, N. Y. (gard., R. Hughes), with a seedling. Eighteen scarlet 1st, Miss C. A. Bliss, with Reacon; 2nd, Daniel G. Reid, Eighteen crimson—1st, Daniel G. Reid, Irvington, N. Y. (supt., Arthur W. Golding); 2nd, Miss C. A. Bliss, Eighteen White ground, variegated—1st, Miss C. A. Bliss, with Benora—Swepstake—1or linest vase, bronze medal. Daniel Reid.—Specimen Begonia Gloire de Lorraine—1st, Sidney M. and Austin Colgate, Orange, N. J. (gard., William Reid). Specimen Cibotium Schiedel—1st, Henry W. Boettger Estate, Riverdale, N. Y. Specimen Davallia Fijlensis—1st, Mrs. J. B. Trevor, Yonkers, N. Y.; 2nd, Winthrop Surgent, Beacon, N. Y. (gard., F. E. Witney).

Winthrop Sargent, Beacon, N. Y. (gard., F. E. Witney).
Orchids.—Collection, not less than 12 species and varieties (species to be considered in preference to varieties), covering 25 square feet of table space—1st, Clement Moore. One Cattleya, in bloom—1st, F. E. Lewis; 2nd, Clement Moore. One One Cattleya, in bloom—1st, E. E. Lewis; 2nd, Clement Moore. One Oncidium, in bloom—1st, Henry W. Beettger Estate. Display of Laclio-cattleyas, Brasso cattleyas, Brasso-lælias, or hybrid Cattleyas. Gold medal or \$25—1st, Clement Moore (gard., J. P. Mossman).
Special Prizes—R. D. Foote, Morristown, N. J. (gard., J. K. Lindabury), four bunches white and five bunches black grapes; Henry W. Boettger Estate, plant of Nephrolopis Exaltata Scottii: Mrs. F. A. Constable, Mamaroneck, N. Y. (gard., James Stuart), collection of cut Nerines; Seven Oaks, Mamaroneck, N. Y. (gard., P. W. Popp), display of dahlias; James B. Duke, Somerville, N. J. (gard., A. A. Macdonald), vase of rose Ophelia; Peter Hauck, Jr., East Orange, N. J. (gard., Max Schnoider), pan of chrysanthemum "Glory of Seven Oaks."

The eighty-third annual show of the American Institute, New York, was held in the Engineering building, on November 4 to 6. inclusive.

The judges were: Eugene Dailledouze. Peter Duff, Geo. Middleton, J. G. McNicoll, Edward Reagan and Arthur Herrington.

This was said to be, and apparently was, the largest and best exhibition which the American Institute has ever held.

### AWARDS TO PRIVATE GROWERS.

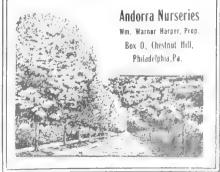
best vase, 12 blooms one variety, Carnations; special for 12 varieties, one bloom cach Mums; and special for 15 blooms yellow Roses. Wm. Vert. gardener to Howard Gould, Pt. Washington, N. Y. 1st, 6 blooms Japanese incurved Mums, crimson; special for 10 blooms yellow Mums; special for 10 blooms bronze Mums, and special for three varieties Carnations, 12 blooms each. Frank Black, gardener to Clarence E. Chapman, Oakland, N. J.—1st, for 6 blooms dapanese reflexed Muns, white; 1st for 6 blooms dapanese reflexed Muns, yellow. Jos. G. P. Kennedy, gardener to Mrs. J. S. Lyle, Tenadly, N. J.—1st, for 6 blooms of Anemone Mums, bronze; 1st, for 6 blooms new Mums, Lairy and plume varieties; and special for burch of violets. Thos. Wilson, gardener to Mrs. G. Murray Mitchell, Tuxedo Park, N. Y.—1st, for 6 blooms Mums, new variety. Henry Gaut, gardener to Herbert L. Pratt, Glen Cove, N. Y.—1st, for vase of single new varieties seedling Mums, a very meritorious exhibit; special for vase of 10 blooms yellow Mums and special for vase of 10 blooms yellow Mums and special for vases of single Anemone Mums. Chas. L. Stanley, Plainfield, N. J.—1st, best collection 10 vases pompon Mums; 1st, vase of 25 blooms Carnations, one variety; special for display of single pompons and Caprice varieties of Mums. Peter Duff, gardener to Mrs. J. Crosby Brown, Orange, N. J., 1st, for each of the following; bush Mum plant Garza; standard Mum, white standard Mum, yellow; and special for each of the following; bush Mum plant Garza; standard plant Garza; standard Lafficana; standard Lafficana; standard Lafficana; standard plant Garza; standard Lafficana; standard plant Mum, white standard white Mum; special for specimen fern. Wm. B. Thompson, Yonkers, N. Y. 1st, best collection of flowering Begonias, with Begonia Gloire de Lorraine; 1st, best collection of single Mums; 18 blooms Mums, and for vase of 10 blooms white Mum, plant Garza; tandard plant Mum, Max Schneider, gardener to Peter Hauck, Jr., Orange, N. J.—1st, 100 blooms serimson Mums; vase of Wi best vase, 12 blooms one variety, Carnations;

## **Worth-While Trees and Shrubs** GROWN AT ANDORRA

The Andorra Way gaves specimen trees

the Andorra Way gave specified these that are large cough to be effective from the first. Nearly all ornamentals can be planted successfully late in the season and the opting of string will fine your late being rich with shorter.

At t Andorra now every development to its hower of begins the field of terms of the field of the



### PHILADELPHIA SHOW.

The annual fall flower show of the Pennsylvania Horticultural Society opened in Philadelphia on November 3. The exhibit as a whole was a most attractive one, and included many interesting features. Coolkenny silver cup for the best bush chrysanthemum plant was won by Joseph Hurley, gardener to Mrs. Thomas B. Hunter. The specimen mum plants exhibited were the best seen in Philadelphia for some years. From the gardener's viewpoint, one of the chief attractions of the show was the new Dracaena Longii, exhibited by Thomas Long, gardener to George W. Childs Drexel. The plant is of the straight growing type, green leaves, two and a half inches wide at centre, gradually tapering to a point with a white stripe running through the centre of the leaf.

A list of the prize winners is given be-

CHRYSANTHEMUM PLANTS.

low:

CHRYSANTHEMUM PLANTS.

Display of 4 plants, Japanese, 4 varieties—1st, Mrs. Jos. F. Sinnot (gard., David Ingram); 2nd, Mrs. Thos. P. Hunter (gard., Joseph Hurley). Display of 3 plants, 3 varieties 1st, Mr. C. B. Newbold (gard., Frank Scott); 2nd, Mrs. Thos. P. Hunter, Three plants, 3 varieties, introduced in 1914—1st, Mrs. Thos. P. Hunter, Beccimen plant, in not over 14 inch pot, of variety Mrs. Frank Thomson—1st, Mrs. Thos. P. Hunter; 2nd, Mr. Geo. H. McFadden (gard., David Alken). Specimen plant, in not over 14-inch pot, of variety Miss Anne Thomson—1st, Mr. Rudolph Ellis (gard., Axel Lindworth); 2nd, Mrs. Thos. P. Hunter. Display of 4 plants, 1 red, 1 white, 1 pink and 1 yellow—1st, Mr. C. B. Newbold; 2nd, Mrs. Thos. P. Hunter. For the best 4 plants, 2 separate varieties and colors—1st, Mr. C. B. Newbold; 2nd, Mrs. Thos. P. Hunter. For the best specimen trained chrysanthemum plant—1st, Mr. C. B. Newbold; 2nd, Mrs. Thos. P. Hunter. For the best specimen thream 1st, Countess Eulalia (gard., Thomas Gaynor); 2nd, Mrs. Jos. F. Sinnot. Two plants—1st, Countess Eulalia, Six plants of rose pocket—1st, Mr. John W. Pepper (gard., William Robertson). Best 6 plants, of any one variety—1st, Mr. Rudolph Ellis; 2nd, 
PLANTS-MISCELLANEOUS.

PLANTS—MISCELLANEOUS.

Palms: Best collection of 12 plants, not less than 6 varieties—1st, Mr. John Wanamaker (gard., John H. Dodds).

Ornamental foliage plants: Twelve plants, 12 species—1st, Mr. John W. Pepper; 2nd, Mr. John Wanamaker.

Caladiums: Best six-named varieties—1st, Mr. John Wanamaker.

Group of foliage and flowering plants, arranged for effect—1st, Mr. John W. Pepper. Orchids: Best collection of plants in flower—1st, Mr. Louis Burk (gard., Charles Wurst); 2nd, Mr. Alphonse Pericat.

Orchids, Cattleya or Laclis-Cattleya hybrid: Best plant in flower—1st, Mr. Louis Burk; 2nd, Mr. Alphonse Pericat.

Group of foliage and flowering plants, 50 square feet of space, chrysanthemum admissable—1st, Mr. Rudolph Ellis (gard., Axel Lindroth).

Lindroth).

Miniature garden, worked out in living trees, Shrubs or flowers, or freshly-cut shoots, branches or flowers of same—1st, Mr. W. W. Frazier, Sr. (gard., Walter Scott).

CUT FLOWERS -CHRYSANTHEMUMS.

CUT FLOWERS—CHRYSANTHEMUMS.
Vase of 6 blooms, Mrs. Frank Thomson—1st.
Mr. P. A. B. Widener (gard., William Kleinheinz); 2nd, Mr. C. B. Newbold (gard., Frank Scott). Four vases, 5 blooms, 1 white, 1 pink, 1 yellow, 1 any other color, distinct varieties—1st, Mr. P. A. B. Widener; 2nd, Countess Eulalia; (gard., Thos., Gaynor). Vase of 25 blooms, not less than 6 varieties—1st, Countess Eulalia; 2nd, Mr. Edgar T. Scott (gard., John Dunn). Fifty blooms, 10 distinct varieties, 5 blooms of each—1st, Mr. P. A. B. Widener; 2nd, Mr. P. A. B. Widener; 2nd, Mr. P. A. B. Widener, 2nd, Mr. P. A. B. Widener, 2nd, Countess Eulalia. Eight blooms of Morton F. Plant—1st, Mr. P. A. B. Widener; 2nd, Countess Eulalia. Eight blooms of Morton F. Plant—1st, Mr. P. A. B. Widener, 2nd, Countess Eulalia. Eight blooms of Morton F. Plant—1st, Mr. P. A. B. Widener, Eight blooms of William Duckham—1st, Mr. John W. Pepper (gard., William Duckham—1st, Mr. John W. Pepper (gard., William Duckham—1st, Mr. John W. Pepper (gard., William Duckham—1st, Mr. John Wanamaker; 2nd, Mr. P. A. B. Widener. Eight blooms of William Turner—1st, Mr. P. A. B. Widener; 2nd, Mr. P. A. B. Widener.

ROSES.

American Beauty, 12 blooms—1st, Mr. P.

A. B. Widener (gard., William Kleinheinz); 2nd, Mr. Geo. H. McFadden (gard., David Aiken).

### CARNATIONS.

Twenty-five blooms, pink, any named variety—1st, Mr. P. A, B. Widener (gard., William Kleinheinz); 2nd, Mr. Rudolph Ellis (gard., Axel Lindroth). Twenty-five blooms of any one variety—1st, Mr. John Wanamaker (gard., John H. Dodds); 2nd, Countess Eulalia (gard., Thomas Gaynor).

## FRUITS AND VEGETABLES.

Best collection of 15 different vegetables, named and arranged tastefully on 24 square fect of space—1st, Mr. W. S. Ellis (gard., Samuel Hammond); 2nd, Mr. C. B. Newbold (gard., Joseph Leavesley).

GREENHOUSE-GROWN VEGETABLES.

Best collection, not less than 20 varieties— 1st, Mr. C. B. Newbold; 2nd, Mr. C. N. Welsh.

## SPECIAL AWARDS.

Coolkenny cup, for best chrysanthemum plant—Awarded to Mrs. Thos. P. Hunter (gard., Joseph Hurley). Silver medal—Louis Burk, for collection of orchids, Silver medal—Mr. P. A. B. Widener (gard., William Kleinheinz), for display of orchids. Silver medal—Mr. George W. Childs Drexel, for new Dracagna Longii Mr. George ' caena Longii,

### BOSTON SHOW.

The annual chrysanthemum exhibition of the Massachusetts Horticultural Society held in Boston, November 5-8, was well up to the average of such shows. Specimen plants were less numerous, but cut blooms were in greater abundance than usual and of splendid quality, so much so that it would almost seem that the big blooms which have been in display here for some years are coming back in favor again. Miscellaneous exhibits were numerous, the groups of foliage and flowering plants, orchids and carnations being particularly good.

larly good.

William Watson, gardener to J. I. Bailey, won first for pair of two specimen plants. A. M. Davenport led for single specimen, and also won a silver medal for the best chrysanthemum plant in the show. H. Wetterlow, gardener to Mrs. Lester Leland, took both first and second for six plants, distinct, carrying six flowers each, in not over 8-inch pots.

William Thatcher, gardener to Mrs. J. L. Gardner, used the large English flowered winter begonias, such as Winter Cheer and Mrs. Heal, orchids and streptocarpi freely in his prize group.

J. T. Butterworth had a fine orchid group, including some fine Odontoglossums, also numerous hybrid cattleyas.

E. H. Wetterlow led for both Lorraine and Cincinnati begonias with grand plants. Alex. McKay, gardener to E. A. Clark, took the other prizes. E. H. Wetterlow received a first-class cultural certificate for splendidly-flowered Turnford Hall begonias. William Downs, gardener to E. Webster, received a silver medal for three large and grand flowered specimens of begonia. Mrs. Heal, one of the best English varieties.

In the palm classes W. Whitman (gardener, begonia. varieties.

three large and grand flowered specimens of begonia. Mrs. Heal, one of the best English varieties.

In the palm classes W. Whitman (gardener M. Sullivan), George Page, gardener to Mrs. Frederick Ayer, and William Thatcher divided the premiums.

D. F. Roy, gardener to H. E. Converse, won first for twenty-five blooms, twenty-five varieties of chrysanthemus, also for twelve Japanese incurved and twelve Japanese reflexed. Alexander McKay led for twelve Japanese Other successful competitors on the named varieties collections were: A. E. Griffin, gardener to E. L. Stone: E. H. Wetterlow, Charles D. Sias, W. S. Russell and E. Townsend, gardener to Mrs. Lathrop Brace.

For vase of two blooms, white, Alex. McKay won with superb William Turner's. He also had the best yellow in Col. Appleton magnificent flowers and led for red with Leslie Morrison. H. W. Vose had the best pink in Chieftain. For best vase of fifty blooms, arranged for effect, there were numerous entries. Frank P. Putnam won for single flowered chrysanthemums. He also had the best pompons and anemones. There were eleven entries for dinner-table decorations of chrysanthemums, Single-flowered chrysanthemums were used exclusively.

In the carnation classes flowers were of grand quality. The leading exhibitors were: C. S. Stout, George Page and Charles D. Sias. Thomas T. Watts, H. Stewart, gardener to Miss C. Warren, and others contributed groups. E. L. Lewis, gardener to Col. F. Mason, had the best twelve varieties of vegetables, and F. E. Sargent led for eight varieties. The individual fruit and vegetable classes were well contested

## horburn's **BULBS**

To the gardener:

OU, who depend for vour profit upon the reliability of seeds and bulbs. feel rightly that a bargain is not of the first importance.

Yet we often have an overstock which we are able to supply below the market, and would be very glad to send you particulars on request.

If you have not received a copy of our 1914 Bulb Catalog, send for it. We printed one especially for you. It contains a wealth of information which will be of use to you.

A large proportion of our business is with those who "raise for profit." Think this over, and let us hear from you.

## J. M. THORBURN & CO. Established 1802

53 Barclay Street, New York



## JOSEPH MANDA

Orchid Specialist

West Orange - New Jersey

## Samanniningspaarstin ordooras a. 2. 11 craad minoces ee 1 a communicaties WESTCHESTER (N. Y.) SHOW.

The annual fall exhibition of the Westchester and Fairfield Horticultural Society was held in New Rochelle, N. Y., November 4, 5 and 6. The large hall was well filled with exhibits of superior quality and wide variety. Tasteful arrangement was in evidence throughout the entire exhibition, the competition was keen and 90 of the 94 classes provided for in the schedule were well competed for. The feature of the third day was the competition for ladies only. Handsome prizes of cut glass and silverware being provided for the best arranged dinner table decoration and best arranged basket of

both piles of rut lakes and silversure being describing and best arranged basket of flowers.

Pier prize for table descration and best arranged basket of flowers.

Pier prize for table descration and the prize prize prize prize for table descration and prize prize prize prize for table descration and prize priz

2nd, E. MacKenzie. Specimen Nephrolepts—1st. A. L. Marshall; 2nd, Wm. Whitton. Specimen Adrantown tern—1st. Jas. Stuart. Three plants. Lonaine Begonia—1st. E. M.acKenzie. Medical St. 2nd, W. J. Sealey. Specimen orchid plant—1st. Alex. Marshall. Display of orchid flowers. —1st. Alex. Marshall. Display of plants: 2nd, John T. Burns; 2nd, Wittman. Twelve white—1st, Benjamin Display of the color—1st. James Stuart; 2nd, John T. James. Stuart; 2nd, John T. Burns. Twelve in John T. Burns. Twelve any other color—1st. James Stuart; 2nd, John T. Burns. Twelve Winsor shade—1st, John T. Burns. Twelve Enchantress shade—1st, John T. Burns; 2nd, Thos. Bell. Twelve crimson—1st. John T. Burns; 2nd, Thos. Bell. 2nd, C. Hawkenson. Display of outdoor flowers—1st. P. W. Popp. Display of flowers from bulbous plants—1st, Jas. Stuart. Display of annuals—1st, J. P. Sorenson. Cups for vegetables were won by Joseph Tiernan and by Adam Patterson. Collection of vegetables, 6 varieties—1st, Henry Gaut; 2nd, A. Patterson. Runch of greenhouse grapes, white 1st, A. Patterson. Collection of apples—1st, Un. Grabam; 2nd, W. H. Maginnis. Box of apples—1st, Wm. Graham; 2nd, Thos. Ryan. P. W. PopP, Secretary.

1 (, 0) H Kahn, with chrysolora. Ten vases 1, 1, 10 varieties, 6 sprays to vase 1st, C. H. Totty, Madison, N. J.; 2nd, Mrs. C. W. McAlpin (gard., Dennis Harkins). Ten vases, single, 10 varieties, 6 sprays to a vase -1st, Mrs. D. Willis James; 2nd, J. W. Everett, Glen Cove, X. Y. Six vases, singles, 6 varieties, 6 sprays to a vase 1st, Percy Chubb, Glen Cove (gard., Edward Honeyman). Largest flower 1st, Mrs. D. Willis James, with Bob Pulling. Six flowers of Wm. Turner—1st, Dr. D. H. McAlpin; 2nd, Mrs. G. E. Kissel. One vase, 5 flowers, any variety not previously exhibited -1st, C. H. Totty, with Mrs. J. Purroy Mitchell, 1915 novelty.

### ROSES.

Twelve White Killarney -1st, Howard Cole; 2nd, C. A. Work, Wm, Mulmichel. Twelve Hadley—1st, Ben. J. Gary, Madison, N. J.; 2nd, Howard Cole, Twelve any other red rose 1+G, G, Mason, Tuvelo, N. Y., with Princed'Arenberg (gard, Pavid S, Miller). Twelve any other pink rose—3rd, Howard Cole, Twelve any yellow rose—3rd, Howard Cole, Twelve Prince d'Arenberg 1st, Mrs. G, C, Mason, Tuxedo, N. Y.; 2nd, Howard Cole, CARNATIONS.

Twenty-five blooms light nink—1st, Mrs. D.

CARNATIONS.

Twenty-five blooms light pink—1st, Mrs. D. Wills James; 2nd, C. W. Harkness Twenty five blooms dark pink 1st, C. W. Harkness; 2nd, John Heeremans, Princeton, N. J. Twenty five blooms, white—1st, Mrs. D. Willis James; 3rd, John Heeremans. Twenty-five blooms, variegated—1st, C. W. Harkness, Twelve blooms, crimson—1st, Mrs. D. Willis James. Twelve blooms, light pink—1st, O. H. Kahn. Twelve blooms, white 1st, Howard Cole; 2nd, S. M. & A. Colgate, Orange, N. J. (gard, Wm. Reid); 3rd, O. H. Kahn. Eighteen blooms any undisseminated variety 1st, C. W. Harkness, Three vases, 3 varieties, 18 blooms cach—1st, C. W. Harkness; 3rd, John Heeremans. Best vase, 1 variety, 25 blooms—1st, Mrs. D. Willis James, with Princess Dagmar; 2nd, C. W. Harkness.

One bunch, 100 blooms, double, blue—1st, Howard Coghill, Morristown (gard., P. Pempede), One bunch, 100 blooms, single, blue—1st, Mrs. D. Willis James; 2nd, Mrs. John Crosby Brown.

### GROUPS AND ORCHIDS.

GROUPS AND ORCHIDS.

Mum plants in arrangement with foliage plants for effect—1st, H. McK. Twombly, Madison, N. J. (gard., R. Tyson); 2nd, Dr. D. H. McAlpin. One specimen mum plant in flower in pot or tub, any color—1st, Mrs. John Crosby Brown, with Lady Lydia; 2nd, Mrs. H. McK. Twombly, Twelve mum plants; 12 varieties, single stem, 6-inch pot—1st, Mrs. John Crosby Brown. Six mum plants in flowers, 6 varieties, single stem, 6-inch pot—1st, C. W. Harkness. One specimen plant Begonia de Lorraine, pink—1st, Mrs. H. McK. Twombly, Table of orchid plants, arranged with fern plants, 4-foot table 1st, Mrs. D. Willis James, One orchid plant 1st, R. D. Foote (gard., J. K. Lindalery). Table decoration for six covers, mum flowers only, any foliage or ferns may be used—1st, Mrs. D. Willis James; 2nd, Dr. D. H. McAlpin; 3rd, Mrs. H. McK. Twombly.

VEGETABLES.

VEGETABLES.

Collection 12 varieties, beauty of arrangement to count—1st, Mrs. D. Willis James; 2nd, Wm. Hall Walker, Brookside, Barrington, Mnss. (gard., Thos. Page); 3rd, Geo. G. Mason, Collection 6 kinds, beauty or arrangement to count—1st, Mrs. C. B. Alexander, Bernardsville, N. J. (gard., Lewis Burkman); 2nd, O. H. Hammond, Bernardsville, N. J. (gard., John Vickerson)

SPECIALS.

Mrs. C. H. Stout, Short Hills, N. J., novelty Dahlia Sunshine, seedling, 1911—Certificate of merit. Mrs. James A. Webb, Madison, N. J. (gard., Luke O'Reilly), collection of vegetables - Special prize, and for white and yellow bloom, and one plant Gorse—Cultural certificate, S. M. & A. Colgate, for exhibition of apples, not for competition—Cultural certificate. Mrs. H. McK. Twombly, exhibition of melons—Certificate of merit.

## GLEN COVE (N. Y.) SHOW.

Lie tentle annual chrysantlemem slev of the Nassau County Horticultural Society was held at Glen Cove October 29 and 30, 1 - judges were Messis, R. A. a. I. Bell and W. Laco ... hardy pompons attracted the most atten-

gardener to Mrs. H. L. Pratt, and John W. Everitt, gardener to Mrs. J. T. Pratt, was The cup for table decorations second. brought out eight contestants, and was won by J. W. Everitt with a pretty table done with a new pink single seedling chrysanthemum named Ernest Westlake, Jr. H. Gaut was second with Dorothy Dan; Jos. Adler third with Peter Pan, and F. Honeyman fourth with a bicolor single; J. Hayes was The society's cup for 12 kinds of vegetables was won by A. G. Hodenpyle Esq. (gardener, F. Petroccia), with a clean grown lot of vegetables. Mrs. H. L. Pratt (gardener, H. Gaut) second. Prize list as follows:

lot of vegetables. Mrs. H. L. Pratt (gardener, H. Gaut) second. Prize list as follows:

C. A. Coffin special: Group chrysanthemums arranged for effect, covering not more than 60 square feet 1st, Percy Chubb, Esg. (gard., F. Honeyman): 2nd, Mrs. H. L. Pratt (gard., Henry Gaut). Harvey S. Ladew special: (a) Best double standard—1st, Mrs. J. H. Ottley (gard., James Macdonald): 2nd, Mrs. H. L. Pratt. (b) Best single standard 1st. Percy Chubb; 2nd, Mrs. W. H. Harkness (gard., A Fournier). Lord & Burnham special: Best double bush—1st, Percy Chubb; 2nd, Mrs. Ottley. Best single bush—1st, Percy Chubb; 2nd, Mrs. Ottley. Best single bush—1st, Percy Chubb; 2nd, Mrs. Harkness. Six plants in 6-inch pots—1st, Mrs. W. D. Gutbrie (gard., W. Boss): 2nd, Percy Chubb. Six vases, 6 varieties, 3 blooms each, long stems—1st, Mrs. Guthrie; 2nd, Percy Chubb. Six blooms, 6 varieties—1st, Mrs. Guthrie; 2nd, Percy Chubb. Six blooms, 6 varieties. Short stems—1st, Mrs. J. T. Pratt (gard., J. W. Everitt): 2nd, Payne Whitney, Esq. (gard., L. G. Forbes). Twelve blooms, 12 varieties, short stems—1st, Mrs. J. T. Pratt (gard., J. W. Everitt): 2nd, Payne Whitney, Esq. (gard., L. G. Forbes). Twelve blooms, 12 varieties, short stems—1st, Precy Chubb; 2nd, Mrs. Guthrie, Three vases, 3 varieties, 2 blooms each, long stems—1st, Payne Whitney; 2nd, Mrs. J. T. Pratt. Twelve blooms, arranged for effect, autunn foliage allowed—1st, Mrs. Guthrie; 2nd, Mrs. H. L. Pratt. Best 2 blooms Mendon Gold medal, Mrs. Guthrie, Best 6 pink—1st, Mrs. Harkness: 2nd, Mrs. C. D. Brewster (gard., L. Fogarty). Best 6, any other color—1st, Mrs. Guthrie; 2nd, Mrs. C. D. Brewster (gard., L. Fogarty). Best 6, any other color—1st, Mrs. Guthrie; 2nd, Mrs. J. C. Ayer (gard., Herry Jones). Twelve blooms—1st, Mrs. Guthrie; 2nd, Payne Whitney: Largest bloom in show—1st, Mrs. Guthrie, Mrs. J. C. Ayer (gard., Herry Jones). Twelve vases singles, 12 varieties, grown and flowered outdoors—1st, Mrs. Guthrie and pomponed outdoors—1st, Mrs. Guthrie; 2nd, Percy Chubb. Twelve American Beauty ro

Pratt; 2nd, Mrs. J. C. Ayer. Filly Singac violets—1st. Thos. Leeming, Esq.; 2nd., Mrs. C. F. Cartledge.

Best collection outdoor flowers. 25 varieties—1st. Mrs. G. D. Pratt (gard., J. F. Johnson); 2nd, Mrs. Ottley.

Silver cup: Best table decoration of chrysanthemums with appropriate foliage or grasses, to seat six persons—1st. J. H. Everitt; 2nd. Henry Gaut; 3rd, Jos. Adler; 4th, F. Honeyman; 5th, J. Hayes.

Nassau County Horticultural Society's cup: Twelve kinds of vegetables—1st, A. G. Hodenpyle, Esq. (gard., F. Petroccia); 2nd, Mrs. H. L. Pratt. Six kinds of vegetables—1st, Mrs. Ottley; 2nd, Mrs. W. V. Hester (gard., Herman Boettcher).

Best group flowering foliage plants, covering not more than 60 square feet—1st, Percy Chubb. Six orchids in bloom—1st, Percy Chubb. Six orchids in bloom—1st, Percy Chubb. Conservations of the conservation of the conse

## OYSTER BAY (N. Y.) SHOW.

The third annual chrysanthemum show of the Oyster Bay Horticultural Society was a decided success, much in advance of last year.

## 



## A Very Personal Invitation

W HILE you are at the Gardeners' Convention in Philadelphia this month, Mr. Wintzer and I want you to come out to West Grove and visit our place.

Mr. Wintzer has some of his choice Cannas blooming in the greenhouse. In them you will see the forerunner of some new Swastika brand varieties.

To hear Mr. Wintzer To hear Mr. Wintzer talk of his canna children and how he "brings them up in the way they should go," is a genuine pleasure in itself.

Our way of storing the thousands and thousands

Robert Pyle, Pres.



ROSE RHEA READ.

of Canna bulbs will also interest you,

Then there are something like 400 varieties of roses in various stages of readiness for Spring sales—not to mention a goodly assortment of shrubs, both in the cold cellars and open ground.

I am planning to attend the Convention. So make yourself known to me and doubtless we can arrange to go out to West Grove together, which, indeed, would be pleasant for me.

If you can't come, then do the next best thing and send your name for our new catalog, soon to be ready.

THE CONARD 2 JONES COMPAN!

Antoine Wintzer, Vice-Pres.

SWASTIKA BRAND CANNAS West Grove, Pa.

A fine silver tray, offered by the North! County Garden Club, to be won three times. only attracted two exhibitors, but as the prize was offered rather late, we anticipate more competitors next year.

The chief winners were as follows:

The chief winners were as follows:
Group ornamental plants—1st, John T. Ingram. Group of mums—1st, James Duckham.
Three pots single mums—1st, James Duthie.
Six pots, single stems—1st, J. Duthie. Three
pots mums as grown for market—1st, J.
Duckham, who also won for white and pink,
and for 12 varieties, distinct. J. Devine won
for 3 yellow and 3 any other color.
For 6 blooms in 6 varieties—1st, F. Kyle.
Best collection white mums—1st, J. Devine.
Best collection bardy mums, 25 varieties—
1st, A. Walker. Collection outdoor flowers—
1st, J. Duthie. Largest bloom in show—1st,
J. Devine. The same exhibitors won the remaining prizes,

maining prizes,

C. Mills was awarded a cultural certificate for a collection of vegetables.

The judges were Joseph Robinson, John Chapman and F. Honeyman.

F. KIRKHAM, Secretary.

## TARRYTOWN, N. Y., SHOW.

The sixteenth annual autumn exhibition of the Tarrytown Horticultural Society was held on Wednesday, Thursday and Friday, November 4, 5 and 6, at the Music Hall, Tarrytown. Both in the number and ex-cellence of its exhibits this surpassed any previous efforts of this society. The several large and handsome exhibits of ornamental foliage and flowering plants staged in the center and at other points of vantage, were a pronounced and splendid feature of this show.

The vases of cut blooms of single stemmed Chysanthemums shown with foliage of different kinds, and occupying the entire stage, were a magnificent feature and of high quality, while the several handsomely decorated dinner tables on Thursday afternoon added much to the beauty of the scene. Specimen blooms of Mrs. H. Stevens, Leslie Morrison, Pockett's Crimson,

Wm. Turner, Rose Pockett, Mary Dunnellan, Otto H. Kabn, Elberon, Lenox, Anne Angus, Wm. II. Duckham, Mrs. Gilbert Drabble, Reg. Vallis, Lady Hopetoun, Meudon, Lealie May Bennett, and W. Mease, all showed excellent form. In the vegetable section, the prizes offered helped very much in bringing out a very large and meritorious display. In the non-commercial classes, R. M. Johnson, gardener to Wm. B. Thompson, Yonkers, N. Y., received certificate of merit for a vase of pretty, new mammoth type pink Verbenas. He also won the sliver cup for largest number of prizes taken during the exhibition; and 1st for each of following: Table of decorative plants; for six heads of Celery; for collection of six vegetables; best six blooms yellow Mums; best specimen bush plant, white; best specimen bush plant, pink; best specimen bush plant, any other color; group of palms, and lastly for specimen Farleyense fern. Charles R. Russell, gardener to Finlay J. Shepard, Tarrytown, N. Y., for six sprays of cut orchids won a silver cup, for new plant, certificate of merit, and one for specimen Kentia, and for display of orchids. James Valentine, superint-odent of Mrs. F. E. Lewis, Ridgefield, Conn., had the best 12 blooms of Chrysanthemums, and 12 blooms variegated Carnations. John Canning, gardener to Adolph Lewisohn, Ardsley, N. Y., was first for each of following; 20 blooms Mums; 36 blooms, 24 blooms, and 12 vases of single Mums; for six plants of Chrysanthemums. Thos. A. Lee, gardener to Mrs. Carl Victor, Ardsley, N. Y., for six blooms of Chrysanthemums, and for a bunch of 50 single blue Violets. W. F. Ross, gardener to Mrs. Carl Victor, Ardsley, N. Y., for six blooms of Chrysanthemums, and for a bunch of 50 single blue Violets. W. F. Ross, gardener to Mrs. S. Hermann, Tarrytown, N. Y., led for three blooms, and Robt. Grieve, gardener to Mrs. S. Hermann, Tarrytown, N. Y., led for three blooms, and Robt. Grieve, gardener to Mrs. S. Hermann, Tarrytown, N. Y., led for six vases pompon Mums. Frank E. Witney, gardener to Winthrop Sargent,

arranged bridal bouquet; best 12 blooms of scarlet Carnations; best 12 blooms of dark plak Carnations; best 12 blooms light pink, and best 12 blooms crimson Wm. Brock, gardener to R. Delafield, Tuxedo Park, N. Y., won a silver cup for 12 blooms Killarney Queen Roses, and was first for 12 blooms original pink Killarney (silver cup), best 50 blooms of assorted Roses (silver cup), and first for each of the following; 12 blooms Killarney Brilliant Roses; best 12 blooms original White Killarney Roses; best 12 blooms white Roses; and for best 12 blooms of crimson Roses, with variety Hadley. Chas. Ruthorn, gardener to Eugene Meyer, Jr., Mt. Kisco, N. Y., first for 12 blooms of Roses not American Beauty, three varieties. Frank C. Luckenbacher, gardener to Paul M. Warburg, Hartsdale, N. Y., first for best basket of cut flowers. W. H. Waite, superintendent for Samuel Untermeyer, Yonkers, N. Y., first for best centerpiece for a table. M. Fitzgerald, first for dinner table decoration. Wm. Jamieson, gardener to E. Berolzheimer, Tarrytown, N. Y., first for best Begonia Gloire de Lorraine, Geo. W. MeIntosh, gardener to Dr. C. C. Brace, Tarrytown, N. Y., first for best 18 blooms, three varieties, Carnations. Wm. Kastberry, gardener to F. W. Vanderbilt, Hyde Park, N. Y., first for best 12 American Beauty Roses; first for best 12 pink Roses, and for best 12 yellow Roses.—Exchange.

## DUTCHESS COUNTY (N. Y.) SHOW.

The twentieth annual exhibition of the Dutchess County (N. Y.) Horticultural Society was held in Poughkeepsie, N. Y., Oct. 29 and 30, and was one of the best. long stemmed blooms and groups of pot plants were exceptionally good. Following is a list of prize-winners in the principal

classes:

classes:
Group of flowering and foliage plants—1st, Wm. G. Saltford. Table Crotons—1st, F. W. Vanderbilt (gardener, H. J. Allen). Group Japanese Mums in pots, 75 sq. ft.—1st. W. Sargent (gardener, F. E. Witney). Group of single Mums in pots, 100 sq. ft.—1st. W. Sargent, Six single Mums, 8 in. pots—1st. W. Sargent, Six single Mums, 8 in. pots—1st. W. Sargent, Six single Mums, 8 in. pots—1st. W. P. Clyde (gardener, H. J. Osterhoudt). Six Lorraine Begonias, 5 in. pots—1st, W. Sargent; 2nd, J. R. Roosevelt (gardener, R. Hutchinson). 36 Mums, 12 varieties—1st. W. P. Clyde (gardener, H. J. Osterhoudt); 2nd, F. W. Vanderbilt (gardener, H. J. Allen). 36 Mums, 6 varieties—1st, F. W. Vanderbilt; 2nd, W. Sargent; 25 Mums for effect—1st, W. Sargent; 2nd, Ogden Mills (gardener, James Blair). Dinner table decoration of Orchids 1st, F. W. Vanderbilt; 2nd, W. Sargent, 20 American Beauty Roses—1st, F. W. Vanderbilt, Colonel Payne's prize, collection Roses, 3 varieties—1st, F. W. Vanderbilt; 2nd, Valentine Burgevine, 12 crimson Roses—1st, F. W. Vanderbilt, with Hadley; 2nd, Ogden Mills, with Richmond. 12 yellow Roses—1st, F. W. Vanderbilt, With Hadley; 2nd, Ogden Mills, with Richmond. 12 yellow Roses—1st, F. W. Vanderbilt, 2 white 1st, Valentine Burgevine, 12 pink—1st, W. Sargent, N. H. Cottam exhibited a splendid collection of Dahlias for so late in the season.—F. E. Witney, Cor. Sec'y.

## TUXEDO PARK SHOW.

The annual flower show of the Tuxedo Horticultural Society was held in Tuxedo Club on October 30 and 31 and November I. It being the finest show the society has ever held in most of the classes competition was very keen. The chrysanthemums were the finest ever shown here, David S. Millar winring the 18 distinct varieties with W. E. Tricker, Daily Mail, Woodmason, Gilbert Drabble, Wells' Late Pink, Mrs. R. H. Boggs, Lady Hopetown, Wm. Kleinheinz, F. S. Vallis, Gertrude Peers, James Fraser, Mrs. H. Stevens, Mrs. R. C. Pulling, Pockett's Crimson, Mrs. E. Wild, Mrs. G. W. C. Drevel. Thomas Wilson won the 12 distinct varieties with Wm. Turner, Mrs. D. Syme, Hetty Wells, H. E. Converse, W. E. Georgeous, Wm. Kleinheinz, Rose Pockett, Daily Mail, Nakota, Mrs. G. W. C. Drexel, M. Louiscaw Rousseau. The groups of mis-cellaneous plants, mums and ferns were all very fine and tastefuly arranged. Roses were shown to perfection. In the class for 18 pink Mrs. C. Russell were shown by Wm. Brock, Joseph Tansey and D. S. Millar, with 6-foot stems. There was good compe

of tition in all the classes for carnations. Joseph Tansey, gardener to Mr. H. M. Tilford, won the prize for the most meritorious exhibit, also for group of mums, and the president's prize for the best vase of roses in the show with a vase of Sunburst. David S. Millar, gardener to Mr. G. G. Mason, won the cup for 6 mums, 12 carnations, 12 roses.

The judges were Mr. R. Williamson, Mr. A. Bieschke, Mr. Wm. Waite, who made the

awards as follows:

awards as follows;

Special prize round group of miscellaneous plants in a space of 75 square feet—1st, Mr. H. M. Tilford (gard., Joseph Tansey); 2nd. Mr. G. G. Mason (gard., D. S. Millar).

Special prize round group of Mums in a space of 75 square feet—1st, Mr. H. M. Tilford; 2nd, Mr. G. F. Baker (gard., James MacMachan).

Special prize, round group of Ferns in a space of 50 square feet—1st, Mis C. M. Bell (gard., David McIntosh); 2nd, Mr. G. F. Baker. Three specimen Palms—1st, Mr. H. M. Tilford.

Three speciman Ferns 1st, Mrs. C. M. Bell; 2nd, Mrs. J. Murray Mitchell (gard., Thomas

2nd, Mrs. c. M. Bell; Wilson).
Six Foliage Plants 1st, Mrs. C. M. Bell; 2nd, Mr. G. F. Baker.
Three Winter Flowering Begonias—1st, Mr. H. M. Tilford, Mr. G. G. Mason.
Three speciman Cosmos—1st, Mr. H. M.

and, M. G. F. Baker.

In M. Tilford, Mr. G. G. Mason.

Tibree Speciman Cosmos—1st, Mr. H. M. Tilford.

Four 10-inch pans Lily of Valley—1st, Mr. H. M. Tilford: 2nd, Mrs. J. Murray Mitchell.

Special prize three standard Mums Plants 1st, Mr. R. Mortimer (gard., C. D. Schaeffer). One bush Mum, white 1st, Mr. R. Mortimer one bush Mum, any color—1st, Mrs. S. Specer (gard., Emil Barth). Twelve Mums in 6-inch pots—1st, Mr. R. Mortimer. One bush Mum, any color—1st, Mrs. S. Specer (gard., Emil Barth). Twelve Mums in 6-inch pots—1st, Mr. R. Delafield (gard., Wm. Brock); 2nd, Mr. H. M. Tilford. Six Mums in 6-inch pots—1st, Mr. D. Wagstaff (gard., Thos. Lyons); 2nd, Mrs. J. Murray Mitchell. Special prize, 18 Mums distinct varieties—1st, Mrs. S. Murs, G. G. Mason; 2nd, Mr. C. B. Alexander (gard., W. Hastings). Twelve Mums, distinct varieties—1st, Mrs. J. Murray Mitchell; 2nd, Mr. D. Wagstaff; 2nd, Mr. C. B. Alexander. Twelve Mums, frame grown—1st, Mrs. S. Spencer, Special prize, two vases single Mums, Totty's 1914 introduction—1st, Mrs. S. Spencer, Special prize, two vases single Mums, Totty's 1914 introduction—1st, Mrs. S. Wellow Mums—1st, Mr. H. M. Tilford; 2nd, Mr. G. G. Mason; 2nd, Mr. C. B. Alexander. Six Red Mums—1st, Mr. H. M. Tilford; 2nd, Mr. G. G. Mason (and Mr. C. B. Alexander. Six Red Mums—1st, Mr. H. M. Tilford; 2nd, Mr. G. G. Mason.

Mums—1st, Mrs. G. G. Mason; 2nd, Mr. C. B. Alexander, Six Red Mums—1st, Mr. H. M. Tilford; 2nd, Mr. G. G. Mason.

St. Mr. G. G. Mason; 2nd, Mr. H. M. Tilford, Six pink Mums—1st, Mr. C. B. Alexander; 2nd, Mr. H. M. Tilford; 2nd, Mr. R. Delafield; 2nd, Mr. A. Scton. Three pink Mums—1st, Mr. R. Delafield; 2nd, Mr. A. Scton. Three white Mums—1st, Mr. R. Delafield; 2nd, Mr. R. G. G. Mason; 2nd, Mr. H. M. Tilford; 2nd, Mr. R. Delafield; 
Vexander. Twelve, any color, Carnations—1st, Mrs. J. Murray Mitchell.

Special prize for six Mums, twelve Carnation twelve Roses 1st, Mr. G. G. Mason; 2nd, Mr. H. M. Tilford.

One hundred Violets, single -1st, Mr. D. Wagstaff; 2nd, Mr. G. F. Baker.

Five dishes Apples—1st, Mr. C. B. Alexander; 2nd, Mr. R. Defailedd. One dish Apples—1st, Mrs. J. Wolfe: 2nd, Mr. C. B. Alexander.

Collection of out-door Grapes -1st, Mr. G. G. Mason; 2nd, Mrs. J. Wolfe.

Two bunches Grapes, greenhouse, white—1st, Mr. H. M. Tilford. Two bunches Grapes, greenhouse, black 1st, Mr. H. M. Tilford. Special prize, collection of Vegetables—1st, Mrs. S. Special prize, collection of Vegetables—1st, Mr. G. G. Mason. Special prize, nine kinds or species of Vegetables—1st, Mr. C. B. Alexander.

Special prize dinner table decoration 1st.

ander, Special prize dinner table decoration—1st, Mr. G. F. Baker; 2nd, Mr. D. Wagstaff, Special prize, center piece, confined to as-sistants—1st, Alexander Roy; 2nd, Wm. Gran-

al prize, floral piece of Lillian Dotty 1st, H. M. Tilford; 2nd, Mr. C. B.

Special prize, Manus 18t, II. M. Tilford; 2nd, Mr. C. B. Muns 18t, II. M. Tilford; 2nd, Mr. C. B. Alexander.

Table of foliage plants 1st, Mr. G. F. Baker; 2nd, C. B. Alexander
Special prize, orchid plant in flower—Mr. G. I. Baker.

Special prize, collection of hardy cut flowers—1st, Mrs. S. Spencer; 2nd, Mrs. L. Chanler (gard., E. Wilson).

Special prize, most meritorious exhibit 1st, Mr. II. M. Tilford.

President's special prize, best vase of Roses in the Snow 1st Mr. II. M. Tilford.

THOS. WILSON, Secretary.

### ELBERON (N. J.) SHOW.

The fifth annual Chrysanthemum show of the Elberon Horticultural Society was held successfully in the Casino, Asbury Park, on the above dates. The arrangements were efficiently carried out and were creditable to George Masson, the secretary, and his committee, consisting of C. O. Duncan (chairman), A. Bauer, Thomas Hambleton, R. B. Allen, W. R. Seymour. The judges were: W. H. Waite, George Middleton and Peter Duff. Nearly 3.000 people attended. The dinner table decorations on the Thursday were very effective and much appreci-

The principal prize-winners were:

The principal prize-winners were:
Thomas Hambleton, gardener to C. A. Wimpgheimer, Long Branch; A. Bauer, gardener to Henry Goldman, Deal; R. B. Allen, gardener to F. R. Guggenheim, Elberon; Charles Hurn, gardener to Daniel Guggenheim, Elberon; George Masson, gardener to Frederick Frelinghuysen, Elberon; Percy Hicks, gardener to H. B. and B. S. Borden, Oceanic; William Dowlin, Seabright; Joseph Mills, gardener to George Gould, Lakewood; C. O. Duncan, gardener to Mrs. Washington Wilson, Elberon; C. De Wilde, gardener to S. Rikes, Jr., Red Bank; W. R. Seymour, gardener to S. M. Goldsmith, West End; D. C. Kelly, gardener to J. B. Greenhut, West End; David Gustafson, gardener to Mrs. Hamilton Kean, Elberon; Newman & Legg, florists, Manasquan; Herbert Kruschka, florist, Asbury Park, R. B. Allen led for the group of Mums, with G. Masson second; while for the group of ornamental, flowering and foliage plants, the winners were Chas. Hurn and R. B. Allen. For 24 blooms in eight varieties, there were five entries, and Hicks and Bauer were first and second.

## NEW BEDFORD (MASS.) SHOW.

The annual chrysanthemum exhibition of the New Bedford Horticultural Society was held in Library Hall on November 3 and 4. and certainly reflected great credit on the few who exhibited. Although the exhibitors were few in number the show was not loking in material and the flowers were as fine as the writer ever saw.

Peter Murray, of Fairhaven, had a total display of palms, ferns and mums not for competition; Joseph V. Pierce, of New Bedford, exhibited a vase of L roses of exceptional quality and a vase of carnations in variety which showed ex el-lent culture: James Garthly, formerly gardener for H. H. Rogers, displayed a fine collection of greenhouse plants, conspicuous 

William Turner was the center of attraction while a vase of 12 Mary Farnesworth was a close second. Among the specimen blooms the following from the converse Estate were especially fine: Leila Filkins, Cheltoni, Marquis V. Venosta, Mrs. W. Duckham, Alice Lemon and Adonis.

Special mention should be made of the group covering 40 square feet, both of which were very fine, competition being close, and the man who could have beaten the cup winner would have had to step some.

The awards were as follows:

The awards were as follows:

Group of chrysanthenums, arranged for effect, not over 40 square feet; Dr. E. R. Humphires cup Won by D. A. Roy; 2nd, A. E. Griffin. Collection of hardy mums, not less than 12 varieties; silver medal—Won by Peckham Floral Company. Bronze medal won by D. F. Roy. Best 6 blooms chrysanthemum Harry E. Converse; Converse cup—Won by A. E. Griffin. Best 18 blooms, distinct varieties; Galen Stone cup—Won by D. F. Roy. Six plants, 6 flowers to a plant, not over an 8-inch pot Cup won by D. F. Roy. Vase of 18 flowers, I variety—Cup won by A. E. Griffin with a beautiful vase of William Turner, Vase of 12 blooms, 1 variety; silver medal of the society Won by A. E. Griffin with Mary Farnesworth.

## DOBBS FERRY (N. Y.) SHOW.

The Thirteenth Annual Flower Show of the Dobbs Ferry, N. Y., Horticultural Society was held November 4 and 5. The 6 and 7, was a great success and much credit is due its officers.

credit is due its officers.

There were 48 classes in the schedule, of which 12 were for fruit and vegetables. Prominent among the prize winners in the plant and flower sections were: J. Andward, Mrs. D. E. Oppenheim (gard., A. McDonald), Mrs. F. Dunn (gard., T. Richardson), J. A. Townsend (gard., E. Howe), I. T. Bush, W. H. Brown (gard., Mr. Holgerson), C. Wilson, Mrs. J. Fraser (gard., H. Hayms), Mrs. Henry Draper (gard., H. Wells), D. F. H. Backland (gard., J. Caselli), St. Christopher's Home (gard., P. Clinton), J. Anderson and H. Keiling.

## NEW LONDON (CONN.) SHOW.

The Annual Chrysanthemum and Fruit Show of the New London Horticultural Society was held November 4 and 5. The show was acknowledged by many as one of the best in the history of the society. Numbers of people visited the exhibition on both days.

Among the exhibits of chrysanthemums was a group of singles staged for non-competition by the Harkness Estate, and called forth admiration from judges, visitors and president; also a very fine trained specimen exhibited by the Palmer Estate.

stanley Jordan secured first prize in the class for 12 blooms, any variety; Ernest Robinson, foreman, Morton F. Plant estate, second; Alfred Flowers, of the G. Palmer estate, third. The latter had some very wonderful blooms of Wm, Turner. In the classes for vases of four distinct colors—M. F. Plant first, for four white and four pink; Harkness estate first for four yellow and four crimson. John Maloney, gardener to the Guthrie estate, secured first for best group of flowering and foliage plants. Carnations were shown by Harkness estate. Among exhibitors of bush chrysanthemums were the Mitchell estate, Gustav Newman, gardener, who secured chief honors. The latter also made a splendid exhibit of fruit. Alfred Flowers also showed some fine apples. The latter secured first in vegetable class for 12 varieties.

On the morning of the second day table decorations by ladies were the feature. Mrs. Edward Smith secured first prize; Mrs. Stanley Jordan second; Mrs. John Humpbrey was third. The judges were: Frank Conine, Stratford; Mr. Griffin, of the Landers estate, and Donald Miller, of the B. A. Armstrong estate.

MENLO PARK (CAL.) SHOW.

The annual show of the Menlo Park Horticultural Society, held October 23 to 25, proved a decided success in every way. was conceded by everyone to be the best ever held by the society. The spacious hall allowed everything to be staged for the best effect.

The orchid groups were first class. J. A. Carbone, of Berkeley, staged a magnificent collection of forty different varieties, includmg some fine brasso-cattleya and lælia hybrids. The exhibit of David Bassett, gardener for L. Stern, attracted more attention from the public. While not containing so many fine hybrids as Mr. Carbone's, it contained some fine cattleyas, kelias, oncidiums, phalænopsis, dendrobiums, vandas, odontoglossums and several curious rare orchids.

Foliage and decorative plants were finely shown by J. Sinclair, gardener for Mrs. J. B. Corvell, David Bassett, J. Paunicka, gardener for C. Lathrop, and C. Ehrlich, gar-

dener for Mrs. Slade.

The cut chrysanthemum classes brought out strong competition. The following varieties stood out prominently: Mrs. Gilbert Drabble, Wm. Turner and Maud Jeffries, in white; Lenox, F. S. Vallis, Chrysolora, and Mrs. J. C. Neill, yellow; Elberon, Wells' Late Pink, Morton F. Plant, in pinks; G. W. Pook, J. Lock, Mrs. H. Stevens, Reginald Vallis, Ongawa and Glenview, in other colors.

Tuberous begonias were fine, both in pots and cut blooms, L. Stern's exhibits containing the latest European novelties of 1914. Although a little late, dahlias were good and brought keen competition from the Menlo Park and San Mateo growers.

Carnations were never shown better. Gorgeous, with 3-foot stems, would be hard to beat. White Wonder, The Herald, Princess Dagmar, Enchantress and Yellowstone were also fine.

The floral exhibits on the third day were fine and helped the gate receipts considerably. In the table decorations, A. McDonald won the cup donated by the Chamber of Commerce of Palo Alto, his table consisting of a small lake with gold fish, an island in the centre decorated with orchids, and water lilies in the water. Mrs. Lee, of Palo Alto, was second.

H. L. Goertzhain, president of the society, staged a lot of cut blooms not for compe-PERCY ELLINGS, Secretary. tition.

### PASADENA (CAL.) SHOW.

The seventh annual chrysanthemum show of the Pasadena Horticultural Society opened in the Hotel Maryland, October 22, and continued during October 23 and 24. Not only from the point of view of entries, but also from quality of stock shown, this exhibition was beyond anything else in the history of the society

It should be explained that here practically all exhibition chrysanthemums are grown in the open air in summer and covered later with canvas. The result is larger and more substantial flowers than are grown in the East under glass, though in some cases the flowers lack finish. The present year they were wonderful blooms in every way owing to the cool summer and the absence of early fall rains.

The judges, consisting of Thos. Chisholm, Wm. Farrell, H. R. Richards, Wm. Hertrich, J. Jannoch and Alex. Urquhart, had considerable difficulty in making their awards, so close was the competition in some cases.

In the evening the judges and officers were the guests of Thos. Chisholm at an elegant dinner which certainly did credit to all. A most enjoyable time was had, and both Mr. Chisholm and his able manager, Mr. Kennedy, exerted themselves to the utmost to make things agreeable all round.-Ex-

### TARRYTOWN HORTICULTURAL SOCIETY.

The regular monthly meeting of the Tarrytown (N. Y.) Horticultural Society was held Wednesday evening, October 21.
The judges awarded first prize for celery to H. Wells, gardener to Mrs. H. Draper, Dobbs Ferry. Other good exhibits of celery were staged by J. Mooney and J. Elliott. There was also a fine exhibit of apples by S. Porteous. Wm. Williams, J. Hall, J. Grant and Samuel Porteous were nominated for active membership.

A committee has been appointed to arrange for a social gathering and ladies' night at the November meeting. J. A. LEE.

Corresponding Secretary.

### NEW JERSEY FLORICULTURAL SOCIETY.

The regular meeting of the New Jersey Floricultural Society was held in Orange, N. J., on Monday, November 2. The meeting was known as a chrysanthemum night and some excellent blooms were on exhibition. For the best 12 blooms in any variety with stems not less than two feet; Mrs. Henry Graves, Orange, N. J., was first; C. C. Goodrich, W. Orange, N. J., second; A. B. Jenkins, third. Cultural certificates were awarded to S. & A. Colgate, Peter Hauck, Jr., and Mrs. A. J. Moulton for decorative chrysanthemums. Mrs. A. J. Moulton received a cultural certificate for mushrooms and C. W. Baker, of Montclair, a certificate of merit, for hardy chrysanthemums. judges were George Wraight, Frank Drews and Max Schneider.

GEO. STRANGE, Secretary.

## OYSTER BAY (N. Y.) HORTICULTURAL SOCIETY.

The regular meeting of the Oyster Bay (N. Y.) Horticultural Society was held in the Fireman's Hall, October 28. The winners in the monthly exhibit were A. Walker, cauliflowers; J. Duthie, chrysanthemums; F. Petroccia, pears. The next meeting will be held November 25 and all future meetings during the winter months will be called for 2 o'clock in the afternoon, instead of at night as in the past. Exhibits for next meeting—1 pot of primula any variety; 12 carnations: 3 leeks.

The third annual chrysanthemum show was held October 30, and was a great success, although the Glen Cove and New York shows were on the same date. The prizes were a great deal more valuable than those of last year and exhibits more numerous. The principal winners were James Duthie, gardener for E. M. Townsend; J. Duckham, gardener for E. F. Whitney; J. T. Ingram;

## Don't Neglect Fall Spraying

Demand It

**Modern Methods** 

TRADE MARK REG. U. S. PAT. OFF.

It pays to get in fall spraying whenever possible. There is danger in waiting for spring spraying. "Scalecide" is better than any other dormant spray, either for insects or fungi. Costs no more than lime-sulphur or the less effective mixtures. Our booklet "Scalecide, The Tree Saver" mailed free. B. G. Pratt Co., Dept. "4", 50 Church St., N. Y. City. bolm Devine: J. Blanc, A. Walker, gardener (sympathy from this society to Mr. 1. A. 1. Britle: I. Evde, gardener to L. C. fin Shaw on the death of his daughter.

A. A. Pierson o Cromwell Comm. exthey received the society's bronze medal. W. A. Manda exhibited some novelty dahlias and also received a bronze medal.

C. Mills, superintendent to J. S. Blackton. but up several fine exhibits and received cul-

om il certificates.

P. KIRKHAM, Secretary

## THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

An interesting and well-attended meeting of the Westeliester and Fairfield Horticultural Society was held at Greenwich, Conn., November 13, President Williamson presiding. One life member and one active member were elected to membership. preliminary statement was made by the Fall Show Committee, showing the recent exhibition at New Rochelle, N. Y., to have been a financial success as well as an ex-bibition of the gardeners' art of superior quality. One of our highly honored members, Mayor-elect John M. Brown, of Stamford, Conn., in a happy vein made the presentation of prizes won at the recent exhibition, and assured the members of his continued hearty support in his personal as well as official capacity. The nominations tor officers of the society for the ensuing year were next in order. A communication was read from the secretary of the National Association of Gardeners setting forth the principles of the National Co-operative Committee as adopted at a recent meeting The W. & F. Society is in hearty accordwith the National Committee in their efforts in behalf of the gardener and the advancement of horticulture, and the local committee will endeavor to assist the National. Committee in everything tending to such advancement

A vase of chrysanthemums was on exhibition purposely to start a discussion as to what constitutes a "Terminal Spray." Opinions on this subject vary. The growing and exhibiting of the single and pompom varieties of mums is becoming yearly more popular, and if the future schedules of the fall exhibitions are to contain the classification "Terminal Spray" we suggest that the "Chronicle" obtain and print in a prominent place the findings of the Chrysanthemum Society of America in the matter, thereby giving intending exhibitors of these popular flowers a chance to prevent disqualifications of exhibits on merely technical points. The next meeting of the society will be December 11. P. W. POPP,

Corresponding Secretary.

## NASSAU COUNTY HORTICULTURAL SOCIETY.

The monthly meeting of the Nassau County Horticultural Society was held November 11 at Glen Cove, N. Y. President II. Gaut in the chair. The feature of the meeting was the competition for the president's prizes for table decorations by assistant gardeners, and some very fine tables were displayed by these promising gardeners of the younger set. 1st, Robert Jones, assistant to F. Honeyman on the Chubb estate; 2nd, Chas. Parr, assistant to J. W. Everitt on the John T. Pratt estate; 3rd, Arthur Book, assistant to President II. Gaut on the H. L. Pratt estate. There were six competitors. Mrs. George F. Baker was elected an honorary member, and Mr. J. Cartwright was charter members of the society, was preelected to active membership. The secre-tary was instructed to write a letter of

Mr. and Mrs. W. D. Guthrie, of Locust Valley, L. I., offered a silver cup for comibited some novelty pempons for which petition at the next chrysanthemum show.

which was accepted with thanks.

The president presented the Mrs. H. L. Pratt silver cup for table decoration at the fall show to J. W. Everitt, and also the Mrs. F. S. Smithers special prize of a set of hooks to John F. Johnston for collection outdoor flowers, after which Vice-president Win. Gray presented to President II. Gant the Mrs. F. S. Smithers silver cup for 50 varieties bardy pomponi chrysudhemums, This cup has been in competition six years and was won for keeps this year by the recipient. Next meeting Wednesday arrernoon, December 9, 1914.

HARRY JONES Corresponding Secretary.

### TUXEDO HORTICULTURAL SOCIETY.

The regular monthly meeting of the Tuxedo Horticultural Society was held on November 11. President David MacIntosh in the chair. A financial report was read in connection with our flower show, which was satisfactory. The nomination of officers for 1915 takes place at our next meeting on December 2, when we are also to have the pleasure of a talk from James MacMachan. Quite a few of the gardeners in the Park intend making the trip to Philadelphia to attend the convention of the N. A. G. when some of them ought to be heard of at the bowling tournament. John Kelly was admitted to membership.

THOS, WILSON, Secretary.

## CONNECTICUT HORTICULTURAL SOCIETY.

The first November meeting was held in the County Building, Hartford, on Friday evening, the 13th, at 8 o'clock. President Huss presided. There was an unusually fine display of chrysanthemums, all sizes and varieties being represented. In the collection exhibited by President John F. Huss was a vase containing six large white chrysanthemums "William Turner." The size of these beauties was remarkable, being at least twenty-four inches in circumference. The Park Department had an exhibit of large chrysanthemums, each specimen exciting the keenest admiration. Mr. Warren S. Mason, of Farmington, exhibited some fine seedling geraniums (Lemoines Hybride). He also displayed a splendid collection of pompon and single mums, with some large varieties. Alex. Cumming. Jr., the rose expert with A. N. Pierson, Inc., of Cromwell, Conn., exhibited a new rose named "Ophelia," salmon color and very tragrant This is a beauty, and no doubt will be a record-breaker as a seller. George W. Fraser, of the Connecticut Agricultural College, Storrs, had on exhibition a handsome pink rose, Mrs. A. G. Gulley.

Mrs. C. H. Sierman, Mr. H. A. Pinney and Mr. George W. Fraser were named as judges and they found the task a hard one. lection of \$16.09 was taken up for the Belgian Relief Fund. Mr. G. H. Hollister read an article from The Gardeners' Chronicle of America on "Propagation of Ornamental Trees and Shrubs" for which he was ac-

corded a hearty vote of thanks.

A local co-operative committee of the National Association of Gardeners was appointed at this meeting, viz.: Mr. II. A. Pinney, Mr. W. W. Hunt and Mr. C. II Sierman. Three new members were added to our roster. Mr. P. A. Sears, one of the of October, 1914 ent, and made a few reminiscent remarks

ALFRED DIXOX Societa

## FORCING FALL TOMATOES.

Growing tomatoes in the greenhouse in the fall is not as easy an undertaking as the inexperienced may think, at least in northern latitudes. Tomato plants of the same variety grown in the same greenhouse and soil and by the same grower act very differently when grown in the fall and spring. The fall grown plants are more spindling, not as vigorous and do not, as a rule, set fruit as freely as those grown in the spring and summer months. The fall grown plants are more frequently attacked by mildew, and the mosaic disease, and apparently are less resistant to a good many troubles than those grown in the spring.

There probably is but one chief reason for this and that is the different weather conditions. The plants for the spring crop are started during the short days of winter and the heat supplied for their growth is very largely artificial. The plants for the fall crop are grown during the hottest part of the summer, and no artificial heat is required. The temperature in which the plants are grown in summer is usually considerably higher than that in which they are grown in winter. This fact accounts for the summer grown plants being more slender and less "hardy" than the winter grown plants. It than the winter grown plants. It takes from 2 to 3 months to grow plants of sufficient size in winter, while in summer plants may be grown to about the same size in from four to six weeks.

On the other hand after the plants are set in the permanent beds in the fall the days grow shorter rapidly and the cold weather soon comes on. After the plants are set in the spring the days grow longer and warmer.

To be successful with fall grown tomatoes, the plants must be started early enough so that the Tomatoes will set and grow to nearly or quite full size before the dark cold days of early winter begin. As soon as the night temperature in the houses falls below 60 degrees it is advisable to fire the boilers.

Tomatoes grown in the fall do not require as much water as those grown in the spring. A sufficient amount of water should be used to keep the plants growing all of the time. but too much water will tend to make the plants tender and to grow too much vine for the amount of fruit borne. Care must be taken when watering not to wet the foliage during dull weather or near night. Foliage diseases, such as mildew, are very likely to get started unless such precautions are taken.

There is no advantage in letting the plants grow very tall. After three or four good clusters of fruits have set, the tops should be cut off and all laterals kept out or pinched off.

The yield from the plants when grown in the fall is usually much less than when grown in the spring. C. W. WAID.

STATEMENT OF THE OWNERSHIP OF spent, enculation, etc., if the Carden consider a final control of America, published in orthly at his con-Note: required by the Act of August 19.

Owners holding 1 per cent, or more of total amount of stock: Martin C. Ebel, Madison, N. J.: Geo. A. Burniston, Madison, X. J.; M. E. Burnis-

Notary Public

This is the time to Spray your Fruit and Ornamental Trees with

## **SCALINE**

For San Jose, Ovster Shell and all scale on trees and hardy stock. An effective remedy for red spider on evergreens.



The Recognized Standard Insecticide

for green, black, white fly, red spider, thrips, mealy bug and soft scale. Can be used on tender plants.

## **FUNGINE**

For mildew, rust and other blights. It is perfectly safe to apply to fruits and vegetables, as it is non-poisonous. An infallible remedy for rose mildew, carnation and chrysanthemum rust.

## **VERMINE**

For eel, cut and wire worms working in the soil. It can be applied to all vegetation.

## NIKOTIANA

A 12% Nicotine solution properly diluted for vaporizing, fumigating and spraying.

## "40" NICOTINE"

A concentrated nicotine for vaporizing, fumigating and spraying.

If you cannot obtain our products from your local dealer, send us your order with remittance and we will ship immediately through our nearest agent

## Aphine Manufacturing Co.

Manufacturers of Agricultural Chemicals MADISON, N. J.

## BON ARBOR

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection. We can prove it.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55 5 lb. package making 150 gallons, exp. extra 1.80

25 lb. package making 750 gallons, exp. extra 6.25

50 lb, package making 1,500 gallons, exp. extra 12.50 lb. package making 3,000 gallons, exp. extra 20.00

Barrels from 250 to 300 lbs., 18c, per lb.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon. 11/2 gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

## BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.



HEN it comes to Green-Houses,

come to

General Offices and Factory-ELIZABETH, N. J.

(())

Philadelphia 40 S. 15th St

派

By an Unusual Arrangement with the Publishers We Offer to Our Readers on Special Easy Terms

## BAILEY'S NEW

Everything Newly Written Up To Date Beautifully Illustrated

## Standard Cyclopedia of Horticulture

THE new Standard Cyclopedia of Horticulture has been freshly written in the light of the most recent research and experience. It is not merely an ordinary revision or corrected edition of the old Cyclopedia, but it is a new work from start to finish with enlarged boundaries geographically and practic-

ally; it supersedes and displaces all previous editions or reprints of every kind whatsoever.

It is the fullest, the newest, the most authoritative of all works of its kind and constitutes the most conscientious attempt that has ever been made to compress the whole story of our horticultural thought, learning and achievement into one set of books. The owner of the Standard Cyclopedia of Horticulture will have at hand in this work a means of quickly satisfying his need for authoritative information. It is both an Encyclopedia and a Manual, for with the aid of its Synopsis and Key, amateur and professional alike may quickly identify any plant, shrub or fruit contained within the set, and then receive expert instructions for its cultivation.

Write for 16 Page Prospectus Containing Complete Description and our offer :: :: To

Subscription Department,
GARDENERS' CHRONICLE OF AMERICA,
Madison, N. J.



## Associating the Garage and Greenhouse

TWO pleasure givers two esserbals, the auto and the ercenhouse. Adding so much to the enjoyment of country living, the associating of them in thought come but natural. Fo carry the thought still faither: the earlies and the greenhouse are a logical link-up. Logical and economical. You save the cost on one gable of the work room. The one boiler will heat them both, to the economy of both.

There are, however, certain important factors that must be considered for the safety and efficiency of each. We won't go into them

here, but will gladly advise you about them. If you would like our suggestions concerning the design and layout of the "link-up," we will gladly arrange to make them for you. Or should you employ an architect we would be glad to co-operate with him. In any event, let's that the question over

## U-BAR GREENHOUSES

PIERSON U-BAR CO

ONE MADISON AVE. NEW YORK
CANADIAN OFFICE TO PHILLIPS PLACE MONTREAS



THE gift for all the family. With this incomparable instrument of music in your home, "all the music of all the world" is yours to command. No other gift can assure so much in genuine delightful pleasure and entertainment, for so long a time, at so little cost, as a Columbia Grafonola.

# Columbia

Any one of \$500 Complete dealers will gloon demonstrate any Grafon la, it in the one at \$17.50 cand it's a real Control to the longnificent model at \$500. A small initial payment places any Columbia revour hore and on Caristans morning it you wish. Balance can be paid, at your convenience, after the heldays.

## COLUMBIA GRAPHOPHONE COMPANY

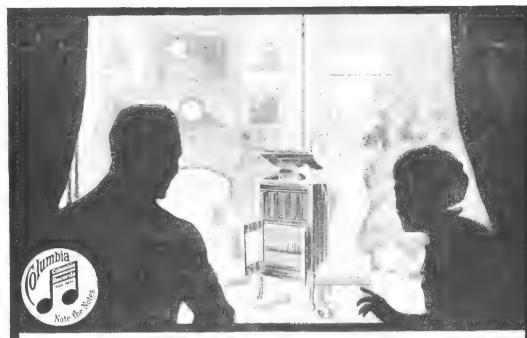
Box L 203 Woolworth Building, • New York Toronto: 365-367 Sorauren Avenue

Dealers wanted where we are refractively regressinted. Write for partoulars

We illustrate the new "Leader" Columbia Grafonola, typical of every other Columbia in its wonderful tone quality. The "leader" equipped with the new Individual Record lip tor, an excessive Columbia feature. Proce. \$\frac{1}{2}\], with regionar read rock, \$\frac{1}{2}\]Others \$\frac{1}{2}\] or \$\frac{1}{2}\].

# 





THE gift for all the family. With this incomparable instrument of music in your home, "all the music of all the world" is yours to command. No other gift can assure so much in genuine delightful pleasure and entertainment, for so long a time, at so little cost, as a Columbia Grafonola.

# Columbia

Any near 185 of Court decreases with a constraint of order to the second and the constraint of the second and the second of the

## COLUMBIA GRAPHOPHONE COMPANY

Box L 203 Woolworth Building, - New York Toronto: 365-367 Sorauren Avenue

Dealers wanted who exceeds a target of a control of the Write for particular

We illustrate the model look of the control of the planty look of the control of the planty look of the control of the planty look of the control of the con

## FOR EXHIBITORS

## GIANT SPENCER SWEET PEAS

## BURNETT'S SUPERB

AMERICA SPENCER. Red flakes, on white ground. Extra fine.

BLUE JACKET. A fine, deep mayy blue. Pkt. 15c., oz. 81.00. CLARA CURTIS. A fine "Primiose Spencer." Pkt. 10c., oz. 50c DOBBIE'S CREAM. Beautiful primrose colored flowers. Pkf. 10c.,

EMPRESS EUGENIE. Light gray, flaked with lavender. Pkt. 25c. HERCULES, A larger, deeper, improved "Countess Spancer" Pkt, 15c., oz. 75c.

ILLUMINATOR. A tich salmon pink. Pkt. 25c. JOHN INGMAN. Bright rosy carmine. Pkt. 10c., oz. 40c.

KING WHITE. Bust White Spencer in existence

LADY EVELYN EYRE. Pink flu hed salmon Pkt 10c., oz. 50c. LOYALTY. Violet flake on white ground. Pkt 15c., oz. 81 00 MARGARET ATLEE. Pink on cream, suffused with salmon. Pkt

MAUD HOLMES. Deep carmine scatlet. Pkt. 10c., oz. 50c. MRS. CUTHBERTSON. Standard rose pank, wings nearly white

MRS. CUTHBERTSON. Standard rose park, wings nearly white Pkt 15c, oz. \$1.00.
ORCHID. Deep lavender, surrosed with pink. Pkt 25c., oz. \$1.50.
PRINCE GEORGE. A pastel shade, rosy line. Pkt. 15c., oz. \$1.00.
ROSABELLE. A voy line large rose sell. Pkt. 25c., oz. \$1.50.
WEDGEWOOD. The best Blue Spencer. Pkt. 25c.

## BURNETT'S PRIZE-WINNER COLLECTION

25 Varieties as follows. 1 pkt. of each. Price \$3.50

AMERICA SPENCER BLUE JACKET CLARA CURTIS DOBBIE'S CREAM ELFRIDA PEARSON EMPRESS EUGENIE

i 1. 1. 1. C. diam 1 331

ETTA DYKE HELEN LEWIS HERCULES ILLUMINATOR JOHN INGMAN KING WHITE

COORDINATE WILL INDUNING THE SHELL

LADY EVELYN EYRE MARGARET ATLEE
MARTHA WASHINGTON
MRS. CUTHBERTSON MAUD HOLMES

MRS. C. W. BREADMORE NUBIAN ORCHID PRINCE GEORGE ROSABELLE THOS. STEVENSON WEDGEWOOD

All the above and many other choice varieties are listed and fully described in our illustrated Spring Catalogue for 1915 now ready—a copy of which will be mailed free on application.

## BURNETT BROTHERS **SEEDSMEN**

98 CHAMBERS STREET.

Between Broadway and Church Streets,

Telephone 6138 Barclay

Add to a

**NEW YORK** 

## "IN THE LAST ANALYSIS RESULTS ARE WHAT COUNT!"

The Chrysanthemums we have distributed every year in spite of all you hear to the contrary are still the Prize Winning varieties. Our catalogue for 1915 is filled from cover to cover with a list of high class stock which will eclipse anything we have previously distributed; Antigone, Earl Kitchener, Bob Pulling, etc., are wonders!

The list includes also Novelties in Early Flowering and Single types.

In New Roses, don't forget, White Shawyer and Mrs. F. F. Thompson, the pure white and shell-pink sports of Mrs. Geo. Shawyer, also Hoosier Beauty, the western scarlet, and Dickson's Novelties.

Novelty Carnations will include Alice, Laura Weber, etc.

Catalogue for 1915 has been mailed; if your copy has not been received, drop us a line.

Compliments of the Season

CHARLES H. TOTTY, Madison, N. J.

## MATCHLESS A GREAT SUCCESS

This remarkable new white carnation has made good every prediction that we made when we disseminated it last year.

Reports that come to us from all over the country are all to the effect that **MATCHLESS**, because of its vigorous constitution, freedom of growth, earliness and wonderful production, is the greatest advance obtained in carnations in many years.

Many of the growers commenced cutting high-class flowers as early as Aug. 20th. One large grower up to November 1st had cut five flowers per plant and reports that his benches are now carrying a large crop of the highest quality of bloom.

Our own experience with MATCHLESS during the four years we have been growing it for the New York market, has proved to us that MATCHLESS is as productive as any existing variety and can be grown to perfection by the ordinary grower. These characteristics, together with the high quality of flower and the fact that MATCHLESS is non-bursting, making it possible to utilize 100% of the blooms, make MATCHLESS one of the most profitable varieties to grow.

Consensus of opinion is that MATCHLESS has taken its place as the leading white carnation in all respects.

Recognizing that there will be an enormous demand for **MATCHLESS** this year, we have devoted two houses entirely to stock plants and will be in position to fill every order that comes to us with cuttings of the highest quality.

Rooted Cuttings for IMMEDIATE DELIVERY Plants from 2-inch pots READY MARCH 1ST

COTTAGE CARDENS CO., Inc. - QUEENS, N. Y.

## **ANNOUNCEMENT!**

On or about February 1st, 1915, we will occupy our new building at 54 Vesey Street in addition to our present building, 56 Vesey Street.

When alterations are completed we will have the largest Horticultural Auction Rooms in the World.

Our Spring Auction Sales of Nursery Stock will start in the early part of March.

If you do not receive our Auction Catalogues, please notify us and we will mail you copies throughout the season.

The MacNiff Horticultural Co.
54 and 56 Vesey Street
New York

# SINCE 1847

THE FIRM OF PETER HENDERSON & CO. was founded in 1847, and the 68 years of success that are behind Henderson's Tested Seeds must and does make them the best that it is possible to buy. In your grandfather's day Henderson's was the standard by which other seeds were judged, and the same condition exists in 1915. Our methods of seed trials and seed testing, which were the best three generations ago, we have improved upon from year to year and today are still the best.

The unknown quantity on your garden and farm is the quality of the seeds you sow, and you cannot be too careful in making sure that you obtain the best procurable. For many years the name of Peter Henderson & Co. has become indissolubly linked with all that is best in seeds, because our constant purpose has always been—and will continue to be—to supply to our customers pure seeds of the highest germinating power only.

## Three Generations

The business founded by Peter Henderson is still carried on by his son, Charles Henderson, Peter Henderson, son of Alfred Henderson (deceased), and Howard M. Henderson, son of Charles Henderson, thus insuring its continuance along the lines laid down by its founder.

In this country, where quick transitions in business are common, the worth of a house carried successfully into the third generation should inspire confidence. In no other business is this factor more essential. The purchaser of seeds should consider the reputation of the house seeking his patronage before buying.

Our Manual of "EVERYTHING FOR THE GARDEN," for 1915, we consider the best we have ever issued, and the seeds, plants, bulbs, etc., have been grown and selected with the same conscientious care which has been our successful endeavor for 68 years. Those who have not received this catalogue may obtain it free upon application by mentioning Gardeners' Chronicle. We have in preparation our Farmers' Manual, Implement and Lawn Catalogues and will mail these also as issued.

## PETER HENDERSON & CO.

35-37 CORTLANDT STREET NEW YORK CITY

PETER HENDERSON & CO., 35 and 37 Cortlandt St., New York City

 $P_{\rm c}$  is solid an without charge to a realizable. For the Garden

Name

Address G. C.

## Begonia and Gloxinia Bulbs

Now ready for delivery
Extra large Mother Bulbs of the most improved
Large Flowering type

Especially selected for Pot Culture and Exhibition

**BEGONIAS, SINGLE,** Crimson, Scarlet, White, Rose, Yellow, Orange, Salmon. 50c. doz.; \$4.00 per hundred.

**BEGONIAS, DOUBLE,** in all the above colors, \$1.00 doz.; \$6.00 per hundred.

**GLOXINIAS**, Red with White Border, Crimson, Violet, Blue. Each, 10c.; doz., 85c.

Our new catalog is ready; it is larger and finer than ever. Send for a copy.

## Weeber & Don

Seed Merchants and Growers

114 Chambers Street,

ginning as to 9 dayoninings and 42 decimental as of 100 co. 1

New York

# 1915

SEE THAT YOU RECEIVE OUR NEW ILLUSTRATED CATALOGUE

ALSO OUR NURSERY CATA-LOGUE OF SHRUBS, TREES, PLANTS AND OTHER NURSERY STOCK



Write for our catalogue which will be mailed free on request

W. E. Marshall & Co.

166 West 23rd Street

NEW YORK

## Extend the Chrysanthemum Cut Flower Season by Planting

**EDWIN SEIDEWITZ.** Clear pink. Excellen flower from Thanksgiving to December 1st. 20c. each, \$2.00 per doz., \$15.00 per 100.

MRS. E. D. GODFREY. The pink Single, coming well into December.

\$1.00 per doz., \$6.00 per 100.

MISS ISABELLE. A bronze sport of Mrs. Godfrey, coming at the same time.

30c. each, \$3.00 per doz., \$22.50 per 100.

## EXHIBITION 'MUMS

ALGONAC (Smith). White, tinted cream at center.

SILVER KING (Smith). Reflexed pure white; large flowers. Very fine variety.

MANKATO (Smith). Described as a Reginald Vallis, with a stem to hold it up.

\$1.50 each, \$15.00 per dozen.

Whether for exhibition or for general growing we can supply the best varieties. Our catalog will be mailed early in January.

# A.N. PIERSON INC. CROMWELL CARDENS CROMWELL CONN

## Seeds with a Lineage

Lovers of gardens and grounds should know that at Raynes Park, London, England, Messrs. James Carter & Co. have the finest and most complete testing and trial grounds in the world.

ា ខេត្ត ។ មានប្រព្រះ្យា សមាជា

Their equipment and the unique methods employed guarantee the quality of their seeds. For generations they have been cultivating, selecting and perfecting until Carter's Tested Seeds have reached the highest percentage of purity and germination.

We import these seeds direct from Raynes Park and carry a complete stock at our Boston warehouses. Write for copy of 1915 Catalogue. Ready December 1st.

Carters Tested Seeds

CARTERS TESTED SEEDS, Inc.

111 Chamber of Commerce Bldg. Boston, Mass.

Branches at Seattle, Toronto, Montreal.

FINEST Grade English Eremurus in eight different varieties. Specimen clumps from \$3.00 each, up.



New pale pink see lling in foreground—E. Robustus in background

Our "Excellenta" LILY of the VALLEY Pips, now in, the finest this country ever saw—in cases of 250 pips, every pip selected—\$7.50 per case, for immediate or later delivery.

The very finest German Pot-grown Lilacs \$3.00 each. Exhibition specimen plants, Prize winners, \$12.00 each.

Of everything in the BULB line, the very highest grade.

JOHN SCHEEPERS & CO., Inc. 2 STONE ST., NEW YORK

## Julius Roehrs Company Nurserymen and Florists

Dissolution of Statement Col. 15 Opening the Company Col. 1 11 15 C

Headquarters for Orchids, Palms, Stove and Greenhouse Plants, Bay Trees and Box Trees, Laurus Cerasus, Aucubas, Cyclamen, Begonia Lorraine and Cincinnati, Evergreens, Deciduous Trees and Shrubs

RUTHERFORD, NEW JERSEY

Incorporated 1911

MARKALARING HEADS . SEADS .

ANDREW K. KENNEDY, Pres. and Treas.

E. C. Gh. at. alm see . . . . . LAL . . sabbucuntAucuntainBucuntain ... J. ...

## KENNEDY & HUNTER

SEEDSMEN

Lily of the Valley—Hardy Lilies—Spiraea
Just arrived in fine condition

Write for list of surplus bulbs

156 West 34th Street One block from Penna. Station New York

"ONLY THE BEST"

1 SUBSECTION AND A STREET AND A

## SPECIAL NOTICE to

Gardeners and Superintendents



THIRTY-FIVE YEARS OF SUCCESSFUL BUSINESS-BUILDING.

Our 1915 Catalogue is in the printers' hands now and will be ready for mailing about Jan. 1st. Be sure to get one, it is one of the most descriptive and complete catalogues ever printed. Drop us a postal and we will cheerfully mail you a copy.

Philadelphia's Leading Seed House

HENRY F. MICHELL CO. 518 MARKET STREET, PHILADELPHIA

🗮

## NEW, RED DOROTHY PERKINS EXCELSA

Winner of the Hubbard Memorial Medal for the best Rose introduced in the last five years.

We have in all sizes probably the finest stock of this fine rose in America.

This is typical of our complete assortment of Climbing Roses for Parks, Gardens and private Estates. Send for our new Price List.

THE CONARD & JONES COMPANY WEST GROVE, PA.

## THE IDEAL GIFT FOR EVERY FLOWER-LOVER

is found in these two wonderfully interesting books. Anyone who appreciates the beauties of Nature will be fascinated from cover to cover. Beautifully illustrated and handsomely printed.

"THE VOICE OF THE GARDEN"
"MY GARDEN OF DREAMS"

By ABRAM LINWOOD URBAN

Price \$1.30 each. Shipped prepaid on receipt of remittance.



We Design and Furnish

are all the co

Germantown, Phila, Pa.

## Plans for the Finest Landscape Work

If you are contemplating any extensive park or estate planting communicate with us on your requirements.

Our Nursery is located at Scarborough, N. Y., near the railroad station, comprising over fifty acres, and contains one of the choicest and rarest collections of shrubs and trees in the country. We have been awarded for the last three years, by the Horticultural Society of New York,

FIRST PRIZE FOR THE FINEST AND LARG-EST COLLECTION OF HARDY SHRUBS AND TREES.

We will take pleasure in sending our catalogue on request.

## F. R. PIERSON COMPANY

Main Office and Post Office, Tarrytown, N. Y.

Telephone, Tarrytown 48

## THE BEST NOVELTY SPENCER SWEET PEAS FOR 1915

- **BOADICEA.** A giant opal pink, delicately suffused pale cattleya mauve. The flowers are of great size and substance, and beautifully waved; a very strong grower, and always abundance of four bloom sprays. A gem for exhibition. (Very scarce.) Pkt. 30 cts.; 4 for \$1.00.
- BOBBIE'S FRILLED PINK. One of the most charming Sweet Peas ever raised. It is a Duplex form of Countess Spencer at its best. A distinct novelty, which will amply repay a little extra care. Pkt. 25 cts.; 5 for \$1.00.
- DON ALVAR. Grown side by side with all the best lavenders, Don Alvar was acknowledged by experts to be the best lavender yet seen. There is no difficulty in getting four and five flowered sprays. (Seed scarce.) Pkt. 30 cts.; 4 for \$1.00
- HELEN PIERCE SPENCER. Now fixed in true Spencer form. It is a most attractive flower and reminds one of a blue mottled Gloxinia. The ground color is white marbled and penciled with bright blue in thin lines on both wings and standard. The vines are vigorous and produce an abundance of strong stems, carrying invariably four large blossoms. Pkt. 25 cts.; 5 for \$1.00.
- JESSIE CUTHBERTSON SPENCER. Those growers who like a good stripe in their collection—and one or two are necessary in every collection—will welcome this grand addition. In the days of popular Grandifloras Jessie Cuthbertson was the favorite stripe, and our efforts to produce a Spencer form of this variety have now been rewarded with a fine large vigorous flower. The ground color is rich cream overlaid with stripes and marblings of bright rose pink. Both standard and wings are alike colored and the whole effect is bold and pretty. Pkt. 25 cts.; 5 for \$1.00.
- MARGARET ATLEE. This was a leading novelty last year and it has proved to be a great favorite. The color is warm salmon pink, perfectly suffused over a cream ground. The cream deepens into bright buff at base of standard and wings and this lights up the flower with great effect. The shade of pink found in Margaret Atlee is entirely a new shade and commands admiration. The flowers are of extraordinary size and many flowers measure two and one-half inches across the standard.

  This variety bears a large proportion of duplex

flowers, which greatly adds to its effectiveness.

Margaret Atlee gained a Certificate of Merit from
the American National Sweet Pea Society. Silver
Medal National Sweet Pea Society of Great Britain, July, 1914. Pkt. 25 cts.; 5 for \$1.00.

- MONTESUMA. This is considered to be a great improvement on Senator Spencer. The flowers are a more pleasing color, being striped with reddish maroon, the base of the standard showing a touch of orange; a good grower, producing four flowered sprays in abundance. Pkt. 30 cts.; 4 for \$1.00.
- NEW MARGARET MADISON. In New Margaret Madison we have a greatly improved strain of the popular lavender color found in our variety Margaret Madison. The size of the blossom has been almost doubled and the form of the flower is now all that could be wished for in a Spencer Sweet Pea.

The color, too, is daintier and prettier and is as near a true lavender as one could wish. The vines are very vigorous and the bold flowers are borne on long, stout stems and usually four blossoms to each stem. New Margaret Madison and New Miriam Beaver make a delightful soft color combination. Pkt. 25 cts.; 5 for \$1.00.

NEW MIRIAM BEAVER. Many and varied are the shades of pink in Sweet Peas, but in New Miriam Beaver we have an entirely new and distinct shade of pink. It is the daintiest and most pleasing shade of pink yet discovered in Sweet Peas. The color is hard to determine, but we think that a soft shell salmon pink on cream ground lightly overlaid with soft hydrangea pink would convey a good idea of its uniqueness.

The color is evenly distributed over both stand-

ard and wings and is very light and pretty.

The flowers are large, nicely waved—often duplexed—and beautifully placed on long stout stems. All other pinks look "heavy" beside this delightful shade. New Miriam Beaver will be the ladies' favorite wherever Sweet Peas are grown. Pkt. 25 cts.; 5 for \$1.00.

- NORVIC. This is one of the largest flowered and best strains of White Spencer Sweet Pea yet introduced. The blooms, which are of extraordinary size, are exceptionally well waved. It is quite fixed in character. Pkt. 20 cts.; 6 for \$1.00.
- ORANGEMAN. A very fine large-flowered variety of true Spencer form. Color a rich, deep orange, beautifully waved. A very strong grower and equally good for both exhibition and market. Pkt. 20 cts; 6 for \$1.00.
- ROBERT SYDENHAM. (Holmes.) One of the most individual colors introduced into the modern Sweet Pea. It is a bright orange salmon self-colored, rather lighter than the Stirling Stent and deeper than Melba or Barbara. It is of immense size and owing to its soft texture needs a little shading during the middle of the day. It is a grand acquisition and created a great sensation when exhibited at the Great Annual Exhibition in London. Pkt. 20 cts.; 6 for \$1.00.
- ROSINA. One of the largest Sweet Peas yet introduced. The standard and wings are a bright rosy heliotrope, with a distinct wire edge of solferino red on a cream ground, which is particularly effective and distinct from anything seen in Sweet Peas. On account of its pleasing and taking color, it has been greatly admired wherever exhibited, and is sure to be a very popular variety. Besides being such a vigorous grower, the flowers are of extraordinary size and well frilled of the true Spencer type, with abundance of four and five flowered sprays; will make a striking bunch for exhibition. Rosina was the leading novelty that helped to win the Silver Cup for new varieties at the National Sweet Pea Society 1913 Show. Pkt. 30 cts.; 4 for \$1.00.
- ROYAL PURPLE. This we consider the best Novelty seen last year. It was shown at the National and other Shows by Mr. R. Wright of Formby, and attracted a lot of attention on account of its fine royal purple color, great distinctness, and size. During 1914 it has more than maintained the high opinion we formed of it last year, and has been very generally admired. Awards of Merit, Royal Horticultural Society and National Sweet Pea Society, 1914. Pkt. 25 cts.; 5 for \$1.00.
- VEILED BRIDE. This is a charming novelty, and is now perfected and fixed. The ground color is white, daintily flaked and marbled with soft rose pink. The wings and standard are alike colored. The form of the flower is all that could be desired, the standard being nicely waved, round and bold. When a bunch of this variety is gathered one must call it "Sweet," the delicate markings of pink being daintiness itself. Pkt. 25 cts.; 5 for \$1.00.

Arthur T. Boddington, Seedsman, 342 West 14th St., New York Clty

The	Content	sDecem	her.	1914
		A	*** * *	+++

•		· ·	
"Ring Out the Old, Ring in the New"		John McLaren Achieves Another Success .	305
Alfred Tennyson	283	Winter Injury of Trees	306
Increasing Popularity of the Rhododendron .	284	Withdraw Protection from European Starling	306
Rare Shrubs for Decorative Planting	285	A Visit to a Snake Farm	306
Growing Bulbs Under Glass Maurice Fuld	287	Fertilizer Resources of the United States .	306
Some of Our Popular Ornamental Hedges .	289	Study of Plant Odors	307
Wood Ashes Source of Potash	290	A One-Tree Farm	307
Forcing German Pot-Grown Lilacs		Queries and Answers	307
John Scheepers		Chas. A. Totty Fully Recovered	308
The Value of Trees	291	Harry A. Bunyard, President, New York	
Work for the Month of January		Florist Club	308
A New Seedling Eremurus W. H. Waite	293	A Mammoth Plant Store	308
Cultural Notes on Ericas	293	American Sweet Pea Society	308
Ceolisia or Chinese Wool Flower	293		309
Snap-Dragon Rust	294		309
Editorial	295		309
Co-operation . Gov. Martin H. Glynn.	295	Maryland Week in Baltimore	309
National Association of Gardeners' Notes .	296	Pittsburgh Florists' and Gardeners' Club	309
National Association of Gardeners' Convention	296	Paterson, N. J., Horticultural Society	
Among the Gardeners	301	Newport, R. I., Horticultural Society	
American Association of Park Superintendents'	20.	Menlo Park, Cal., Horticultural Society .	
Notes	302	Connecticut Horticultural Society	
The Milestone of Park Development		Westchester and Fairfield Horticultural Society	
Geo. A. Parker	302	Tuxedo, N. Y., Horticultural Society Nassau County Horticultural Society	
City Forestry in Chicago . J. H. Prost	303	North Westchester Agric. and Hort. Society	
City Potestry in Chicago . J. 11. 1 10st	505	ration are estenciated Agric, and Tron. Doctety	711

## Stumpp & Walter Co.'s Catalog

Our 1915 Spring Catalog will be mailed to you on request, if you have not already received a copy.

Many New and Exhibition varieties of Flower and Vegetable Seeds are offered. Farm and Grass Seeds are also a feature. Cannas, Dahlias, and Gladioli—the best varieties to date.

We desire to express our best Christmas wishes, and hope that 1915 brings you much happiness—and to us the pleasure of serving you often.

Stumpp & Walter 6 30-32 Barclay St. New York

## GARDENERS' CHRONICLE

### OF AMERICA

THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

#### THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XVIII.

DECEMBER, 1914.

No. 8.



## Ring Out the Old! Ring In the New!



Ring out the old, ring in the new— Ring, happy bells, across the snow; The year is going, let him go; Ring out the false, ring in the true.

Ring out, wild bells, to the wild sky,
The flying cloud, the frosty light;
The year is dying in the night—
Ring out, wild bells, and let him die.

Ring out the grief that saps the mind,
For those that here we see no more;
Ring out the feud of rich and poor,
Ring in redress for all mankind.

Ring out a slowly dying cause, And ancient forms of party strife; Ring in the nobler modes of life, With sweeter manners, purer laws.

Ring out the want, the care, the sin,
The faithless coldness of the times:
Ring out, ring out my mournful rhymes,
But ring the fuller minstrel in.

Ring out false pride in place and blood,
The civic slander and the spite:
Ring in the love of truth and right,
Ring in the common love of good.

Ring out old shapes of foul disease Ring out the narrowing lust of gold; Ring out the thousand wars of old, Ring in the thousand years of peace.

Ring in the valiant man and free,
The larger heart, the kindlier hand;
Ring out the darkness of the land,—
Ring in the Christ that is to be.



Alfred Tennyson.



## INCREASING POPULARITY OF THE RHODODENDRON.

In Europe and England the rhododendron has been grown for several centuries as an ornamental shrub, but its culture in America dates back little more than fifty years. For a long time the idea prevailed that the hybrid varieties could be grown successfully only within the narrow limits in the United States, and that rhododendrons were for the few rather than for the many. Happily this notion has been dispelled, writes Joseph H. Sperry in *The Country Gentleman*, but extensive plantings of the two hardy native species—maximum and Catawbiense—were begun no more than a decade ago.

Now the planting of this finest of the broad-leaved evergreens is yearly increasing. Together with finer appreciation of the beauty of its foliage and blooms has come more intimate knowledge of species, varieties and cultural requirements. Rhododendrons are an ornament either to cottage grounds or to the large estate, and can be grown successfully in different situations. After they are once established they are more enduring than almost any other shrub, and require less

attention.

Of the two American species of importance, Catawbiense grows in the high Alleghenies from Virginia to Georgia, bearing in June handsome lilac-purple flowers. Catawbiense, both for planting in its wild form and for use in producing hybrids, is the most valuable known species. It was introduced into England as early as 1785, and became common there by 1809. So hardy is it that it and also many of its hybrids can be grown as easily as lilacs. In beauty of foliage it excels almost any other evergreen, and in bloom it rivals many European hybrids.

The second valuable American species is maximum, often called Great Laurel and Rose Bay, which grows in the deep woods from Maine southward, and is very common in the Allegheny Mountains from New York to Georgia. Its flowers, which appear in July, vary in color from white to pink. The lateness of its blooming period, its remarkable hardiness and large, handsome foliage, all make maximum a very desirable species.

In America few rhododendrons were planted before 1855. Catawbiense and maximum were used to some small extent, set on well-kept lawns and in formal gardens where, on account of their loose manner of growth, they suffered much from comparison with the polished surroundings amid which they were growing.

Hybrids in these early plantings were used largely either as single specimens or in pairs. The mistake made in planting the native species, maximum and Catawbiense, was in not placing them in proper environments, and another error in setting both these and hybrids was that group and mass plantings, which show the shrubs to the best advantage, were apparently little used.

Here and there in Massachusetts and Connecticut, and States south of these, specimens of these early plantings may be seen. In the narrow north front dooryard of the James Stannard house, at Westbrook, Conn., a pair of these early planted rhododendrons may be seen, one on each side of the entrance gate, where they have been growing hard on to a half century, requiring very little care, just left undisturbed, producing every year a wealth of blooms, one of lilac purple, the other of blush white. In Saybrook, Conn., several immense rhododendrons are growing in the dooryard of the old Morgan house. On the north lawn of the Goldsmith place at Milford, Conn., well away from the house but shaded somewhat both by street and lawn

trees, are two rhododendrons evidently planted many years ago, differing much in size and shape, but one clearly being that very hardy, well-shaped, semi-dwarf variety Everestianum.

-Instances might be multiplied of these survivals of early plantings. They are valuable in that they suggest where we should plant rhododendrons on the home grounds in reference to buildings and trees, and also that we should plant groups rather than single specimens or pairs, though even this method is proper when the home grounds are very small.

Catawbiense may be put to any of the uses that are made of maximum, and may also be planted along with those hybrid varieties that bloom at the same time with it, not a few of which it equals in the beauty

of its flowers.

Hybrids may be used in the several ways in which the native species are planted, but are inferior to the natives for such uses, and, moreover, are somewhat expensive. Hardy hybrids are most enduring and effective when planted close to each other, and where they will be partly shaded either by trees or by buildings or barriers of some kind from the sun and wind, especially from the southern sun, which is particularly injurious in winter as well as in summer. Plant on any side of a building or in any angle of it except the south, but not in very close proximity to its side.

Both natives and hybrids flourish on western and northern slopes, and when well established need little protection even from winter winds. Where drives or paths on large grounds are outlined by shade trees on each side, rhododendron borders between the trees and

the drive give a fine effect.

Tall and dwarf rhododendrons may not be planted in the same group, the latter being used to great advantage in shaded rockeries, or amid dwarf evergreens.

To sum up, the ideal location for rhododendrons is where they will get a touch of the sun, morning and evening, and a glint of its rays at noon through the treetops or overhanging branches. Massing of rhododendrons, especially the native species, against a background of evergreen trees is very effective.

Rhododendrons will not live at all in a lime or chalk soil, nor will they drive in a clay soil, but will grow in any light, rich, sandy loam. If, however, an excavation is made to the depth of two feet and is filled in with leaf mold, peat, pine needles, leaves, stubble—in short, any decaying vegetable matter—mixed with rotted turf and sand, moisture will be conserved, better results will follow, more profuse blooms and greater permanency of the plants will be assured.

Rhododendrons must have moisture, for their roots are hairlike and do not penetrate deeply into the earth. A heavy watering at the roots, just before the blooming season and during droughts, benefits greatly. The plants should not be allowed to go into the winter dry at the

roots

The best hybrid rhododendrons are produced by layering; a slow process that makes the plants expensive. Next in excellence are English and American plants that have been produced by grafting hybrids low down on Catawbiense roots, a less expensive process giving quicker results and one chiefly used by English and American nurserymen.

In planting grafted rhododendrons set the plants low enough in the ground so that the point where the union is made between the graft and the root will be two inches below the surface. In a few years roots will grow out from the part of the graft beneath the soil, and what the nurserymen call an "own-root" plant will result, entirely independent of the root upon which it was grafted, and equal in value to a layered plant.

## Rare Shrubs for Decorative Planting

Apparently the most difficult part of planting is selecting what to plant. This phase of the subject has heretofore received scant attention, for few have realized how easy it is to give an air of individuality to the home grounds. The general public has been content to go on planting about a dozen different species of common shrubs, such as lilacs, syringas, spiraeas and the like when there is a much larger list to choose from and one that has every advantage on the side of beauty and decorative usefulness, writes Wm. N. Clute in American Botanist. To be sure, he says, the species commonly planted have the merit of being exceedingly hardy, very floriferous and almost sure to bloom annually, but many less known plants have all these characteristics. Even the

species commonly planted have relatives fully as beautiful and interesting. The Persian lilac, for instance, costs no more than the familiar shrub grandmother's garden and is a much more graceful and charmin: plant.

It is unlikely that any other spiraea will ever supplant the bridal wreath (Spiraca Vanhouttii) but its smaller relative, known as the snow garland (S. Thunbergii) deserves more frequent planting. It is one of the earliest of shrubs to bloom and its wand-like branches laden with small, white, star-shaped flowers is warrant enough for the common name.

About the time that the snow garland becomes conspicuous in the shrubberies, a little known relative of another common species comes into bloom. the cornelian cherry (Cornus mas) which as anyone familiar with generic names will perceive, is not a cherry at all, but one of the dogwoods. The red-stemmed dogwoods (Cornus stolonifera and C. sanguinea) are planted everywhere for the warm and pleasing effect of their red bark contrasted with snowbanks, but one who knows only these species would scarcely recognize the cornelian cherry as belonging to the group. All our native dogwoods have white or creamy flowers which open as the leaves unfold or after they are spread. The cornelian cherry, on the contrary, has bright yellow flowers which appear before the leaves. It forms a round headed shrub some ten feet high and, when covered with its clusters of flowers, is a most conspicuous object and one that adds much to the appearance of our borders at the beginning of the vernal season. Later in the year the flowers are followed by red, purple, or yellow fruits.

In spring, however, shrubs may usually be depended on to bloom. The great difficulty has always been to secure shrubs that will bloom after the first burst of spring has passed. Although summer flowering shrubs are rare in comparison with those that bloom earlier in the year, a number exist, and one who would give an air of individuality to his grounds should plant them. First in the list of this kind should be placed the rose of Sharon (Hibiscus syriacus) a well known plant of old fashioned gardens that deserves a place in all new ones. During July, August and part of September, it is literally covered with bell-shaped, blue, pink or white flowers that rather closely resemble the hollyhock.

The angelica tree (Aralia Chinensis) and the devil's

walking stick (A. spinosa)- are two members of the ginseng family that are easy to grow, curious in appearance and practically certain to produce great panicles of creamy-white flowers every August. These plants have few true branches, but they bear immense decompound leaves that have all the appearance of being such. In winter, when the great leaves have fallen, the stout, thorny have an odd appearance which no doubt accounts for at least one of the common names.

One species of tamarisk (Tamarix gallica) blooms in mid-summer. It has long slender branches thickly set

stems, stiffly erect,



HALESIA TETRAPTERA-SILVER BELL.

with tiny leaves like those of the cedar and the minute rosy flowers are borne in spikes along the branches. It is quite unlike other common plants and is most desirable for the contrasts it makes. It is a native of the rather dry and sterile parts of the Old World and will thrive even in poor soil. Another species, Tamarix parviflora, blooms earlier in the year and should not be selected if summer flowers are wanted.

A summer flowering Japanese tree that is coming into cultivation is the pagoda tree (Sophora Japonica). It bears long racemes of white flowers set off by the shining leathery leaves. The tree, itself, is shaped much like a well grown Persian lilac. The varnish tree (Kolreuteria paniculata) is another species that is not well known at present. It belongs to the soap-berry family and is therefore akin to the maples and horsechestnuts. It bears large panicles of bright yellow flowers at a season when flowering shrubs of any kind are desirable, and will doubtless become more common as its merits become known.

Equally rare in the Northern States, at least, is the

chaste tree (*Vitex agnus-castus*). In late summer it puts forth a profusion of violet purple flowers disposed in dense terminal racemes. The whole plant has an aromatic odor when bruised. Unfortunately the plant is doubtfully hardy north of the Ohio river, though it is said to thrive in parts of Pennsylvania and with some winter protection would doubtless endure the winters much farther north. The interesting nature of the shrub makes every effort to extend its range worth while.

Here, too, may be added a not very distant relative of the soap berry which is commonly known as the smoke



Courtesy Mechan's Garden Magazine, EXOCHORDA GRANDIFLORA PEARL BUSH,

tree. This is really a sumac (*Rhus cotinus*) though it has little resemblance to our common kinds. Its attractiveness lies in its clusters of fruit stems or pedicels. The plant rarely fruits, but after blooming the pedicels lengthen and branch and being covered with longish hairs make the whole bush appear as if enveloped in a nebulous haze of pale purple.

The witch hazel (Hamamelis Virginica) which can be dug in almost any thicket in the Northern States is undoubtedly the latest of all shrubs to bloom, but it is not the only autumn flowering shrub. The blue spiraea (Caryopteris mastacantha) does not begin to open its blossoms until September but it continues in bloom for a month or more. The plant is not a spiraea, being more nearly allied to the chaste tree. Its appearance, however, is much like a low spiraea, which accounts for the dealer's name for it. It is also known as Chinese beardwort.

This phase of the subject should not be left without some mention of the bush clover (Desmodium penduliflorum). It is neither a bush nor a clover, though it simulates both close enough to deserve its common name. In late September it is literally covered with racemes of pink pea-like flowers which make it very conspicuous. It dies to the ground in winter, though very shrub-like in appearance.

Coming back to shrubs that will give additional beauty to our shrubberies in spring, we find a wealth of material from which to choose, exclusive of the popular favorites. The pearl bush (Exochorda grandiflora) is an excellent species for varying the monotony of viburnums, syringas, and deutzias. As its common name indicates, the flowers are pearly white and are produced in abundance on the ends of the branches.

The globe flower (Kerria Japonica) with flowers like small yellow roses is an interesting addition to the border, not alone because of its flowers but also on account of its stems which are covered with green bark that gives a touch of vitality to the shrubbery even in winter. In autumn it frequently produces a second crop of flowers. Another species, which for want of a better name is known as the white kerria (Rhodotypos kerrioides) has rather larger white flowers that somewhat resemble those of the blackberry. The shrub forms a compact green head that even dry weather seems nearly powerless to injure.

The laburnum or golden chain (Cytissus laburnum) is better known in the Old World than it is here, but it is one of the most attractive of plants. At the blooming season it is thickly set with long drooping racemes of vellow flowers very much like those of the locust in size and shape. When in blossom, few shrubs are prettier. The fringe tree (Chionanthes Virginica) a near relative of the ash, olive, and privet is another attractive species with thick and shining entire leaves and a profusion of flowers with narrow drooping petals that make the common name unusually appropriate. The fringe tree is also related to our lilacs and golden bells (Forsythia) but the silver bell, though having flowers not unlike the Forsythia, is a member of the ebony family. To the same family belongs the storax with white bell-shaped flowers. There are two or three species of storax in our Southern States, but the plant most frequently found in cultivation is a species from Japan. Styrax Japonica.



Courtesy Mechan's Gordon Magazine.
RHUS COTINUS SMOKE BUSH.

INTERNATIONAL
SPRING FLOWER SHOW
New York, March 15-23, 1915
Under the auspices of
Horticultural Society of New York,
New York Florists' Club
Preliminary Schedules may be obtained from
JOHN YOUNG, Secy.'
53 W. 28th St., New York.

#### GROWING BULBS UNDER GLASS.

BY MAURICE FULD.

The cold frame as a storing place forms the best connecting link when bulbs are grown under glass. When bulbs are brought in from the frame they are usually placed under the bench first to change the color of the foliage.

The heat must be gradually increased in order to pro-

duce the best flowers.

Conservatories permit the growing of many varieties of bulbs. My aim is to bring these forward and to mention any special features which are necessary to grow these bulbs to perfection.

To facilitate reference to them I give them here in

alphabetical order.

#### AMARYLLIS -- HIPPEASTRUM FAMILY.

Under this class one could collect perhaps several hundred varieties, but in nearly all seed books one can find the following sorts: A. Johnsoni, Prince of Orange, Vittata Hybrids, etc., etc.

It is very essential for the grower to make sure what class of Amaryllis he is growing, for otherwise he will soon be in trouble. If at all possible procure growing plants in pots, for then you are saving yourself a lot of trouble and you have the advantage of enjoying a prime flower the first winter or spring.

In the spring, after blooming, plunge the pots in the open ground, and water but sparingly, simply to keep them growing. The idea is to keep them in an inactive stage. About September 15 bring them to the conservatory, gradually increase watering and when the buds peep through between the leaves feed with liquid sheep manure.

They love a fairly warm and humid atmosphere and under those conditions produce their best flowers.

If dormant bulbs are secured they must be so potted that only part of the bulb is imbedded in the soil and fully one-half to two-thirds is exposed above the surface; such plants will not produce a perfect flower until the second winter. Keep them in growing condition all the time just as recommended for growing plants.

#### BULBOUS ANEMONES,

All the following classes, namely: Anemone Coronaria de caen and Anemone St. Brigid require a distinct culture, which can be applied to all alike. These Anemones are mostly grown for cut-flowers and will when more widely known become very popular. They are extremely cheerful and bright.

The bulb should be potted in September by planting several in a large bulbpan or a quantity in seedflats. They must be stored in cold frames, but must not be allowed to freeze. They should not be brought to the conservatory until about March 1 and even then they must always be grown cool. The temperature which suits the violet (about 50 degrees at night and 55 degrees in the daytime) suits these bulbs equally well. In fact, if a house is devoted to violets, the Anemones are best planted between them, where they will produce grand results.

But Anemones can be grown with equal success in cold frames entirely. The frame of course must be given up entirely to Anemones or be divided with Ranunculus and early Gladiolus, which require exactly the same treatment. Prepare the soil in the frame carefully and provide for perfect drainage. After they have been planted, place the sash over the frame. When freezing weather sets in cover the soil within with leaves right up to the sash and when the weather is extremely severe protect the frame further with mats and shutters.

About March 1 remove the leaves and on bright days between the hours of 10 and 3 open the sash to allow a free circulation of air. Just as soon as the growth com-

mences to appear above the soil, watering must be daily attended to and an application now and then of liquid sheep manure is excellent.

They usually begin to flower early in May and are at

their best during that month.

#### ANOMATHECA CRUENTA.

This is known as the Red Freesia, as it resembles the Freesia in growth, in foliage and flower.

It is never sold in dormant condition, but the plants are usually lifted from the ground while growing and shipped here in November. They are then potted, a number in a pot, and placed at once in a cool greenhouse, where they slowly grow and where they produce their bright scarlet flowers in March and April.

#### CALOCHORTUS.

Although growing wild in California, it requires glass culture in the East and North. The wonderful markings of the flower which resemble those of the better orchids should be an inducement for every flower lover to grow it. The bulbs arrive late and immediately on their arrival should be potted. In growth it resembles a Tulip, but is always weak in appearance. The bulbs after being potted should be stored in a cold frame, but must not be allowed to freeze. In February they are brought to the conservatory, where they can finally bloom in a temperature of 60 to 65 degrees.

#### CYPREPEDIUMS ACAULE.

This is our native or wild Lady's Slipper. The pips, which are usually collected in October or November, should be secured from your seedsman in frozen condition, gently thawed out, potted in a pan and started cool, and the heat can slowly but gradually be increased. Under favorable conditions the flowers should appear in five weeks. Directly after potting they are best placed under the bench, where they are excluded from the bright light. By planting them at intervals of a week there can be a succession of flowers for several months.

#### DARWIN TULIPS.

I have seen them in splendid condition, when gently forced in the conservatory. The potting and storing can be the same as for all regular tulips, but when they are brought in from the frame they must not be placed in excessive heat; in fact, they do much better when grown entirely at a moderate temperature, such as 55 to 60 degrees. Darwin Tulips look beautiful in pans and they furnish us the rare shades, including purple, mauve and wistaria.

#### GERBERA JAMESONI AND ITS HYBRIDS.

The Barberton Daisy, with its wonderful arrangement of petals and its long, massive stems, has become one of the most select winterflowers, and now that we can have them in almost every shade of the rainbow, it is bound to become a general favorite.

The flowers after being cut will invariably last from eight to ten days. In order to produce a crop of flowers during the winter the plants must have been dormant for four months previous to planting, which usually takes place in November and December. The best method to grow them is in a solid bench and not in pots. Start them at a fairly cool temperature and on the dry side, that is, water but sparingly until the first growth is through the ground; then gradually increase the heat and the supply of water. The first flowers usually appear towards the beginning of March and from that time on there is a constant succession until June.

#### GLADIOLUS NANUS.

The fairly small bulbs usually arrive from Europe towards the latter part of October, and they can be treated

in several ways: 1. If the conservatory has a department which is entirely devoted to Carnations these Gladiolus may be planted between them; they do not interfere in the growth of the Carnation and they like the temperature in which the Carnation is produced. 2. They may be potted or planted in flats and stored away in cold frames or protected pits until February and March and then brought under glass and gently forced. By the above two treatments they usually begin to flower about the latter part of April and are at their best in May. 3. They may be planted out into the cold frame and treated like Anemones and then the flowers are produced in June.

Among the newer introductions there are some splendidly colored sorts, particularly in shades of lavender

and pink.

Gladiolus Colvilli, which is usually classed among these, requires the exact same treatment.

#### LARGE FLOWERED GLADIOLUS.

In connection with this culture, three points must be religiously observed: 1. That the bulb to be used is of proper age, namely, that it has flowered at least two years previously under regular field culture and consequently is a fully matured and very large bulb of its kind. 2. That the bulb is thoroughly cured. This one point seems to have been more responsible for failures in the past than any other thing. Also the culture calls for planting in January. A Gladiolus bulb requires positively a rest of three months before it can be regrown for another crop of flowers; that would mean that the bulb has to be harvested not later than the end of September. Only bulbs that were planted in April, with the exception of a few quick flowering varieties, as, for instance, "Pink Beauty" and similar kinds are ready for lifting at that time. Even then the curing of the bulbs must be far more thorough than it usually is if the bulbs are stored for spring planting it may require the spreading of the bulbs on floors of storage rooms and artificial heat used to thoroughly dry them. 3. That only such varieties are used which are early bloomers, and which are known by past experience to flourish under this culture.

The following varieties may be recommended: "America," "Panama," "Pink Beauty," "Mrs. Frank Pendleton, Jr.," "Mrs. Francis King," "Halley," "Augusta," "May," "Peace," "Chicago White," "Brenchleyensis," "Princeps," "Governor Hanley," "Niagara." In under-glass culture the Gladiolus requires a cool temperature, and commercial growers usually grow them for economy's sake between Carnations, for the temperature which suits the Carnation

also suits the Gladiolus.

#### GLORIOSA.

Gloriosa is popularly known as the Climbing Lily of South Africa. In the conservatory it can be put to several uses: 1. To use as a climber over doorways or for a general greenhouse vine. 2. As a pot plant. The culture is the same in each case. The bulbs are dormant during late fall and are best procured at that time. When received place them on dry moss on the bench of the conservatory and watch for the white growth on one end of the bulb. Just as soon as this growth progresses it is time to plant them.

If grown either in pots or for a vine several should be planted, properly spaced, as a single bulb produces a very

lonesome effect.

Cover the bulbs not more than one inch and grow in a warm house. Growth is very rapid and the slender stalks must be tied to some support. The flowers appear, as a rule, within two months after planting and many of them are produced on a single stem.

#### LILIUM HARRISH.

The bulbs of these Lilies usually arrive early in August and should be promptly planted. Try and secure the largest possible bulb, for the larger the bulb, the surer your success. Fill the pot but half full with soil and set your bulb upon it, allowing no part of the top of the bulb to protrude. The top of the bulb should not be above the rim of the pot. The bulb must fit fairly snug in the pot. After potting, place the pot in a frame without the sash and cover lightly with straw; water carefully and regularly every day. It will take from four to five weeks for the bulb to make roots, but they make two sets of roots. In addition to the roots below the bulbs, they produce a set above the crown of the bulb and at the base of the main stalk; when these upper roots have progressed to two or three inches it is time to give the plant a larger pot, but great care must be taken not to disturb the roots

In the conservatory they should be grown fairly cool until you can feel the buds by touching the upper part. It is well now and then to dust sulphur between the leaves to keep the plants in healthy, clean condition. Watering must be religiously observed, but never must it be overdone, for too much water is just as injurious as not enough. When the buds can be felt they can be given more heat. A great deal depends upon when they are wanted in bloom. If they are desired for Easter, grow them steadily up to the time when the buds are almost fully developed. From now on they can either be retarded for a month by placing them in a rather cool and shady place or they can be forced to full bloom in a few weeks by increasing heat and light and water. A feeding with liquid sheep manure at regular intervals will improve foliage and flowers.

#### LILIUM LONGIFLORUM GIGANTEUM.

The bulbs arrive late in October and should be potted in the manner suggested for Lilium Harrisii, but must at once be placed in the conservatory under the bench. Being started so late they require more heat from the beginning, but otherwise they respond to all treatments as suggested for the Bermuda Lily.

#### LILIUM CANDIDUM.

Insist upon receiving bulbs grown in the northern part of France, for they are the only quality which should be used for growing under glass.

These bulbs arrive early in September and should promptly be potted, using Azalea pots and planting from

four to six bulbs in the proper size pot.

The pots are then plunged in the cold frame and when freezing weather sets in, they are covered with leaves and the sash. About January 15 they are taken to the conservatory, where they are gradually but gently forced. It is not always possible to regulate their blooming season for Easter, but even if they flower later, they are welcome.

#### LILIUM MYRIOPHYLLUM.

The bulbs can be procured in early fall and if treated like Lilium Giganteum, but forced only in cool houses, they produce splendid flowers.

#### LILIUM SPECIOSUM.

All the sorts of this class can readily be grown under glass for flowering in June.

The bulbs arrive in November and after being potted they are best stored for a couple of months in cold frames, where they must be well protected from frost by sashes and leaves.

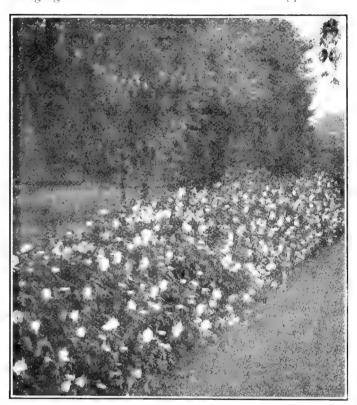
Heat must be gradual and gentle at first.

-From Growing Bulbs.

## Some of Our Popular Ornamental Hedges

The demand in hedge plants in this country is more for those of an ornamental character than for those used for defense, as in Europe, where the wonderful hedges of hawthorn excite the admiration of travelers year after year, writes a contributor to *The Florists'* Review. Honey locust, osage orange and cockspur thorn are the leading defensive hedge plants here, but none of them makes a first-class hedge, and all are more for agricultural than horticultural use.

We have, however, a good variety of ornamental hedge plants, both deciduous and evergreen. A neat hedge gives a finished and more attractive appearance



Context of Flort Relate
ALTHAEAS MAKES AN FULLCTIVE LATE SUMMER
FLOWERING HEDGE.

to any place, and the seclusion thus furnished adds to the charm of a garden. In this connection, it may be said that there is room for many times the number of hedges now to be seen. It is not good policy to plant the same type of hedge for all purposes. This only intensifies the monotony that is already too apparent in American gardens. It is sometimes better to suggest hedges which are a little out of the ordinary, which will give an air of distinction to the grounds of the owners using them.

While many people prefer hedges clipped square, a somewhat rounded top is to be recommended. The latter is ordinarily as handsome as the square top, and has the added advantage of shedding snow much better.

Foremost among deciduous hedge plants come the ligustrums, or pivet. The one most in demand is the California privet, L. ovalifolium. This is quick growing and makes a thick and handsome hedge in a short time. It cannot be used, however, in the colder states, where minimums of 5 to 20 degrees below zero are recorded, for under such conditions it will be cut down to the ground in winter. A much hardier and more

satisfactory variety, one which will withstand temperatures of 25 to 30 degrees below zero, is L. Ibota, the Japanese privet. L. Amurense, the Amoor River privet, is also quite hardy. As a general rule, plants eighteen to twenty-four inches high are the best for hedges. A zigzag row makes the thickest, densest hedge. Set the plants in a double row twelve inches apart. Privet hedges should be cut down quite hard the first year or two. This insures a thick bottom. The pruning should be done in spring, not in fall. Two clippings should be given during the growing season, one in June, the other in early August. Fall planting of privet is not recommended in the more northerly states.

Berberis Thunbergii, the Japanese barberry, makes a splendid hedge, one which is defensive in character as well as ornamental. It succeeds equally well if planted in either fall or spring. It may be trimmed into a formal hedge, like the privets, or allowed to grow naturally. Of course, the latter plan is the more pleasing where space will allow. If a thick, trimmed hedge is wanted, set the plants a foot apart; if natural growth is to be allowed, double that space. When the hedge is untrimmed, the fruits, which remain fresh all winter, give it an added charm.

The althwas, or roses of Sharon, are excellent for hedging purposes in case an effective late floral display is desired. Plants twenty-four to thirty-six inches high should be planted twenty-four inches apart. They require heading back well each fall to keep them within bounds, but must not be cut in sum-



CORRAGORATA AND THE REST OF THE AMERICAN ARBORATAR IS A POPULAR EVERGREEN HOOGE.

mer. The altheas suffer when the thermometer descends to 10 degrees below zero in winter.

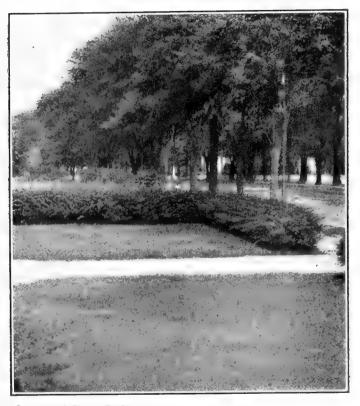
The crategus, or hawthorn, makes a wonderful hedge in England, where thousands of miles of it are to be seen. C. Oxyacantha is the kind best adapted for hedging. Plants twenty-four to thirty-six inches high

should be planted a foot apart for a close hedge, and the plants must be headed down to ten inches to insure a dense bottom. Unfortunately, hawthorns in America have many foes, such as borers, leaf-miners, scale, red spider, aphis, etc., and some bad fungoid affections. For this reason they will never become popular.

Deutzia Lemoinei makes a splendid hedge plant. Set out twenty-four inches apart and allowed to grow naturally, it soon makes a dense hedge and in May or early June, according to latitude, will each year be a mass of white flowers. D. gracilis also makes a fine hedge plant. It does not, of course, produce an imme-

diate effect, as in the case of privets.

A few other deciduous plants which can be used for hedging purposes are: Hydrangea paniculata grandiflora; this, of course, needs heading back well each winter; it makes a grand floral display in late summer. Fagus sylvatica, European beech, is useful if a tall hedge is desired. Rosa rugosa is also a strong grower, but it is not adapted to small grounds. Syringa vul-



Courtesy of Florist Review, BERBERIS THUNBERGI MAKES A SPLENDID HEDGE.

garis, lilac, makes a satisfactory hedge. Acacia, or honey locust, is good as a defensive hedge. Rhamnus cathartica, buckthorn, is good where a tall, strong hedge is desired. Philadelphus Lemoinci, the new French hybrid, is more moderate growing than the old P. coronarius and makes a splendid natural hedge, flowering profusely while small.

These do not at all exhaust the best of desirable hedge plants of a deciduous character. Various spiræas, viburnums, carpinus, stephanandras and others are

available.

Coming to evergreens, we find the list a much more restricted one. Probably the variety most in use is Thuya occidentalis, American arborvitæ. This makes a neat hedge, is hardy, withstands dry conditions well and is a quick grower. Objections to its use are that it turns a brownish color in winter, and no matter how well headed in it may be, it is thrown out of shape to some degree by heavy snows.

Picea excelsa, Norway spruce, makes a splendid thick hedge, one which can be closely cropped annually. I have seen hedges of this spruce in New England ten feet high and as much across, which are perfect pictures, grand windbreaks and afford shelter and nesting places for hundreds of birds. Set the Norway spruces twenty-four to thirty-six inches apart, according to size.

Tsuga Canadensis, or hemlock, when placed in a suitable position, one not too dry or windswept, makes easily the finest of all evergreen hedges, coming the nearest to the English yew of any of our North American evergreens. It suffers from dryness at the root more than other evergreens, but when it is given sufficient moisture, we have no evergreen equal to it. It

lasts longer than Norway spruce or arborvitæ.

A few other available hedge plants are: Buxus sempervirens, boxwood; useful as a bordering for flower beds, etc. Juniperus Virginica, common red cedar; I have seen excellent hedges made of this plant. Retinospora plumosa, Japanese cypress; this and its golden sport, aurea, make neat hedges. Euonymus Japonicus and E. Sieboldianus; these have handsome, dark green, shiny leaves, are erect in habit and make splendid hedges. Taxus cuspidata brevifolia, yew, and Taxus baccata, English yew; the last named succeeds moderately well near Philadelphia and at points south, but is not hardy farther north.

To make a success of hedges, the ground should be prepared in advance and turned over to a depth of two feet, deeper if possible, and two or three feet wide. Incorporate some thoroughly decayed manure with the soil. Be sure not to use any fresh manure. If planting cannot be done until spring, it is a great help to prepare the ground in the fall. Generally speaking, evergreens succeed better if planted in spring than in fall, but most deciduous plants do as well or better if planted in the fall, provided the work is not done too late and care is taken to firm the roots thoroughly. In the case of evergreens, it is especially necessary to keep the roots moist, not only at planting time, but through the season. Dryness at the root is accountable for more dead evergreens than winter's cold. Therefore, in the fall, when there is any likelihood of evergreens having dry roots, soak them thoroughly before the ground becomes sealed by frost.

## WOOD ASHES MAY FURNISH SOURCE OF POTASH.

If the European war should cause our large annual imports of potash to dwindle, many farmers will look to wood ashes among other substances to replenish the potash supply. Wood ashes are now a factor in Canada, besing considered a regular commercial commodity, and the large lumber mills and other plants using wood or sawdust for fuel in this country which at present make no use of the ashes from their furnaces or waste piles may find it profitable to store and sell them if the demand warrant it.

Besides the potash, ashes contain other ingredients which are of value to plants; namely, about 1 or 2 per cent. of phosphoric acid, a little magnesia and a great deal of lime.

Ashes from hardwoods (deciduous trees) are richer in both phosphorus and potash than those from pines and other softwoods (conifers). Ashes from oak, elm, maple and hickory have more potash than those from pine. The ashes of twigs (faggots, for example) are worth more for agricultural purposes than the ashes of heart-wood taken from the middle of an old tree. The smaller and younger the wood burned the better ashes.

#### FORCING GERMAN POTGROWN LILACS.

By John T. Scheepers.

In order to successfully force German potgrown Lilacs, and the German should be recommended before all other, it is necessary to know, that the various varieties require different treatment. To a large extent failure or unsatisfactory result can be traced to wrongful treatment and unsatisfactory choice of varieties for a certain purpose.

Quite frequently the first mistake is made in packing the plants; note the buds upon arrival and how the plants were packed; if too much material was used it is probable that the buds were smothered; there is no necessity for the use of great quantities of packing material, only the potball has to be protected against too severe changes in temperature.

Of all the many varieties for forcing there are only a very few that can be satisfactorily forced early, unless

"retarded" plants are used.

For earliest forcing the following are most satisfactory: Marie Legraye, single white; Charles X., single lilac; Hermann Eilers, single, rose with lilac; and Casimir Perier, double white; Marie Legraye is the best one of the lot.

For earliest forcing, allow the pots to get thoroughly frozen for from eight to 14 days, if necessary using the cold storage for this purpose; thereafter the plants must be slowly forced, at a temperature of about 77 degrees; give no more water than the plant can absorb but produce sufficient moisture through spraying, repeatedly done. As soon as the young sprouts are from 2 to 3 centimeters long (about one inch) raise the temperature to from 82-86 degrees, to reduce it again by about nine degrees by the time the plants commence to blossom. In that way the buds open slower and the flowers become larger; when in full bloom, take the plants into a house with a temperature of from 57 to 59 degrees, to harden them off.

The double varieties, with the exception of Madame Casimir Perier, should not be used for early forcing; for later forcing all existing varieties may be used; for such forcing an average temperature of from 64 to 68 degrees will be sufficient; for such forcing the plants will take from five to six weeks to blossom, but they will produce much more beautiful flowers.

For late forcing a very light and airy house should be used.

In forcing the following points should be most particularly observed:

1. The entire plants should have sufficient room, in

order that they may develop themselves evenly.

2. The plants should not be watered more than the plants need; the results due to overwatering are poor roots, resulting in unsatisfactory formation of flowers

and inferior coloring.

3. If special fine spikes are wanted, the blossombuds on each branch should be broken off, excepting the two strongest buds.

4. In case of foliage coming too strong, the young foliage should be early removed.

5. The colored varieties should be forced slowly, cool and with plenty of light, resulting in purer and more

pronounced shades.

Retarded Lilacs can be forced at any time; the first eight days they should be kept in half shade, later airy and light; treated in that manner it takes in summer from 3 to 4 weeks to bring them in full bloom; should they be wanted for Christmas flowering, they should be started at the latest the first of November, proper development being much slower at that time of the year.

#### THE VALUE OF TREES.

Trees being so indespensable to human welfare and comfort, it seems incredible that they should ever be allowed to suffer from neglect or that their wholesale destruction should be permitted. The man who plants a tree is a public benefactor, but he who protects and cares for trees already planted is no less deserving of praise and gratitude.

Every lover of trees should strive to create and foster public sentiment in the community in favor of tree planting and tree protection. Each town should have an organization devoted to arboriculture. In some states there are already such town organizations and the good results obtained are potent arguments in favor of a general

adoption of the plan.

The care of trees is not a matter of sentiment alone, but of dollars and cents as well. Did you ever stop to compute the value of a single full-grown tree? If it were destroyed tomorrow you could not replace it in your lifetime. It represents a century or more of growth. Perhaps it was planted by your forefathers, or perchance it was spared by the original settlers when the land was cleared. Reflect on these facts and let the reflection prompt you to tender, watchful care.

Trees breathe the same as animals. They inhale oxygen and exhale carbonic acid gas. The oxygen is taken in through their leaves and through the minute openings in the bark, called lenticels. This process of breathing goes on in the tree day and night, but assimila-

tion takes place only in the daylight.

Trees growing under favorable conditions frequently reach an age of several thousand years and attain enormous size. That the majority of trees die so young is in most cases due to the fact that they are subjected to unfavorable conditions. As examples of what trees may do when soil climate and surroundings are at their best, a dragon tree in the Canary Islands is said to be over 6,000 years old and a bald cyprus in Mexico over 4,000 years. An English oak and one of the redwood "big trees" in California are known to be over 2,000 years old. The eucalyptus in Australia attains a height of 470 feet and the redwood and douglass fir in California grow to a height of 300 feet or over. In the Eastern States it is not uncommon to see a sycamore or a tulip tree 150 feet high.

Of course, the age and size of trees depends much upon the variety. Some kinds of trees like poplars, willows and birches are comparatively short-lived, while oaks, white pines and the sycamore are naturally long-lived. All varieties of trees may have their lives greatly prolonged by proper care and those which seem doomed to death because of neglect may, in many cases, be restored to health and vigor by intelligent treatment. The removal of all dead or diseased wood, careful pruning, the filling of trank wounds with concrete, chaining or bolting to prevent the splitting of crotches, and the destruction of the insects that prey upon the foliage or infest the bark are the main features of the work of renovating trees.—Tree Talk.

#### AUTOMOBILES MAINTAIN RHODE ISLAND ROADS.

This year the motor vehicle roos, estimated at \$150,000 in prise the only funds rocked by the State of Rhode I had beered work. The State system comprises \$25,77 miles of water bound macadam and \$8.66 miles of bitunanaus macadam actor? of \$24.12 miles. All let the water bound mile dam have horse a been treated the year with esphaltic oil applied under proceed. The fact that Rhode Island is maintaining its state roads solely by means of rocked the information of the major and part which this great has ether of a system is taking in the road account.

#### SNAPDRAGON RUST.

During the summer of 1913 the attention of the floriculture department of the University of Illinois was first called to a rust on antirrhinum growing in the region north of Chicago, says a report on "The Rust on Antirrhinum," by Chas. C. Rees, Floricultural Pathologist, Argiculture Experiment Station, University of Illinois, Urbana, Ill. This rust, although it was thought at the time to be of little or no economic importance, has since, by virtue of its having spread into two other states, affecting seriously the snapdragon crops of a considerable number of growers, come to be regarded as a serious pest.

Prior to the summer of 1913, the rust had been reported but from two western coast states, California and Oregon. In 1895 it was determined as a new species by Holway, an American botanist, and named

Puccinia antirrhini (Diet, and Holw.).

Then in September, 1914, the writer learned that the snapdragons growing on a private estate in northern Ohio were suffering an attack of the disease. The report was substantiated by the receipt of a quantity of diseased material from that locality at the station

only a few days ago.

The disease is easily recognized and each grower of antirrhinum owes it to himself as well as to neighboring growers to examine his plants and cuttings thoroughly for any traces of infection. Within ten to thirteen days after a plant has been exposed to the rust, numerous grayish white areas the size of a pin's head will appear on the under sides of the lower leaves. From three to five days later characteristic rusty, brown pustules begin to replace these spots. These pustules continue to increase in number until practically every leaf of the plant is attacked. The stem also furnishes a foothold for the disease.

At this stage the plant begins to wilt; its period of usefulness has passed and in a short time it is dead.

Cuttings have also proved themselves to be quite susceptible to attacks of the disease. Taken at a time when their vitality is at its lowest point, the cuttings fall an easy prey to the rust. The disease appears on the cuttings as it does on the older plants, grayish white spots appearing first, followed by the rusty brown pustules. However, where the cuttings are taken from diseased plants in the field, the pustules may show up on the upper leaves as soon as they do on the lower ones. The reason for this is obvious, as the disease was already established on the plants in the field from which the cuttings were taken.

Owing to the fact that experimental work on the disease is just being commenced, the writer is unable at this time to advance any definite methods of control. However, after studying this problem for the last six weeks and after having observed the infection in a number of localities, it would seem advisable to

observe the following precautions:

Examine carefully the cuttings and plants growing in the house. Pay particular attention to the lower leaves of the older plants, as the heavy moisture on these leaves makes conditions ideal for the germination of rust spores. Remove at once and burn all plants showing the slightest signs of infection, keeping well in mind the description of the rust as given in this article. Diseased plants should be removed, roots and all, and burned with great care, as the spores will "fly" upon the slightest provocation, and in this way neighboring plants are infected.

As heavy moisture on the leaves makes germina-

tion easy for all rust spores, it would seem advisable to discontinue all overhead watering. Water only from below, and should the soil dry out too rapidly, mulch the bench well.

Do not propagate from a plant showing the slightest signs of the rust or from a plant that has in any way been exposed to the disease. The selection of cuttings from diseased plants has already played too active a part in the spread of the infection.

#### EXPERIENCE WITH THE RUST.

Referring to report on "The Rust on Antirrhinums," by Chas. C. Rees, Floricultural Pathologist, University of Illinois, Arthur Smith, Reading, Pa., submits the

following experiences:

"In the summer of 1913 I had a number of seedlings Antirrhinums growing in four-inch pots which were suddenly (apparently) attacked by a disease similar to that described in your article and which resulted in the majority of them dying. Although this was an entirely new experience, I did not attach the importance to it which it no doubt deserved.

"This year the same thing has happened, but the results have not been so destructive as the affected plants were removed, but not, as subsequent events have shown, before other plants had been infected for, since they have been benched, the rust has appeared upon many of them. I am, however, sanguine enough to venture to believe that I have got the disease practically under control by the following means:

"All plants badly affected, that is, with stems as well as leaves rusted, were turned out, the remainder had all diseased leaves removed and thoroughly sprayed with Fungine. The result is that the progress of the disease has practically been entirely stopped. Some plants have stems eighteen inches long with all leaves for six inches from the bottom destroyed, but the stems and remaining leaves are perfectly healthy, and others that were attacked are sending up healthy new shoots. I began spraying three weeks ago and have since sprayed all antirrhinum, those which have never shown any sign of rust as well as the others, twice a week, at the same time refraining as much as possible from overhead watering. In this latter connection, however, it has appeared to me that in the case of plants in pots out of doors as well as in the ground in 1913, the disease spread faster during hot dry weather than it did after the moister cool weather of autumn. This was especially noticeable with regard to plants in the ground which had had many of the lower leaves killed, but which recovered themselves and flowered well after rains in September. Strangely enough, this year not one plant from the same batch of seedlings planted in the ground has shown the slightest sign of

"The result of spraying has convinced me that the proper course to pursue for the future is to spray as a preventative before the disease appears and to keep it up throughout the season."

#### QUESTIONS SIMILARITY OF DISEASES.

Regarding Mr. Smith's communication, Chas. C. Rees writes: "I wish to say that if the diseased specimens of Antirrhinum which he sent to me are typical of his infection, then his plants are not suffering from an attack of the rust, Puccinia antirrhini. For this reason, I should say that his letter to you regarding control measures, etc., has no direct bearing on my article, as he is referring to a different disease of the Antirrhinum entirely."

## Work for the Month of January

By Henry Gibson

There is little that can be done outdoors at this time of the year, save it may be the trimming of such of the forest trees about the place as may need it. All cuts made on limbs of three inches in diameter and over should be painted over. When left unpainted they form excellent means of access for fungous diseases, which only too readily find means of entrance to the trees.

In localities where the weather conditions permit any planning and alterations that are deemed necessary may be carried out. Where manuring and digging of the vegetable garden has not been attended to, advantage should be taken of the first favorable opportunity of having the manure wheeled or carted on the ground, in readiness for spring digging.

#### SEED SOWING.

Some of the 1915 catalogues are now out, and ere these notes appear many more will be in the mail, which is a gentle reminder that with the advent of the New Year comes the time when definite plans for the year's garden must be formulated. It is never a difficult matter to form an approximate idea of the number of plants required for the summer bedding and the same remark applies to the quantity of seed required for the vegetable garden.

Among the many seeds which can be advantageously started now are: Aquilegias Delphinums, Petunias, Verbenas, Thunbergia, Shasta Daisy, Salvias, Solanums, Sweet Williams, Heliotropes, browalias, asparagus, Begonias, in variety, Glorinias, Tomatoes, Lettuce, etc.

#### Tuberous Begonias.

These begonias make useful subjects for conservatory decoration. A batch started up now will make fine plants by the end of April and on through May, when a display of the different shades of white, vellow, pink and red, will attract attention when ones employer comes from the city house to the country for the season. The tubers may either be started in the propagating bench, or they may be started in shallow flats on the bottom of which has been placed about two inches of sandy soil. On this plant the tubers close together and cover with just sufficient sifted loam to fill up the spaces between them. It is not even necessary to cover them if they are well shaded, for as they come into growth they should be potted into 3-inch pots. Bottom heat is an indispensable factor in starting tuberous begonias and if there is no room in the propagating bench place the flats on the hot water pipes. If kept fairly moist no trouble should be experienced in starting every one.

#### BEDDING BEGONIAS.

Among the list of seeds that may be sown this month is mentioned Begonia Erfordi, and those who use this plant extensively as a bedding should not overlook sowing the seed early. As a bedding this begonia is hard to surpass, its dense heavy growth is seldom affected by winds, it stands the dry heat of summer well, and flowers right through the season until cut down by the first heavy frost

Immediate effect is what is wanted when planting out, and by starting early first-class plants can be had in 4-inch pots, by the end of May, with which small stock cannot compare, no matter how thickly planted. Sow the seeds carefully in well drained pans of light sandy compost, and keep the little plants moving in a temperature of 60 degrees. They love heat and moisture, and a rich well-drained soil when potted.

Propagating.

From January onwards conditions are ideal for propagating purposes. The fires are maintaining a steady heat in the sand, and in most cases there is plenty of material to propagate from. Therefore every inch of space in the propagating bench should be kept filled until one has worked up a stock of what is needed. Where roses are to be propagated it is of the utmost importance that the bench and the sand be perfectly clean and in condition to receive the cuttings. Cleanliness is essential at all times, but nowhere more so than in the bench intended for propagating roses. Nearly everyone who propagates roses has his own particular idea as to the number of eyes a cutting should have. Personally, we think that for ordinary purposes three is sufficient, cut just below and just as close above the eves as can be done without injuring its vitality. When the cuttings are put into the sand care should be taken to point the leaves all one way and it will help considerably to prevent contracting some of the many diseases if the leaves are not allowed to touch the sand. There should be an air space between the leaves and the sand, and a good way of accomplishing this is to have small canes laid across so as to rest on the sides of the bench and the leaves allowed to rest on them. For beauty cuttings this device is especially valuable.

#### CARNATIONS.

Stock in a healthy growing condition is sending up strong flower stems at the base of which is plenty of material for the propagatory bench. Keep it going, as with roses, a clean bench, a clean sand and clean cuttings are the foundations of success. A bottom heat of about 56 degrees and the top heat that of a carnation house temperature is what is needed. A carnation does not want to lie a long time in the sand before it begins to root, or you may look for a sickly plant. Although the propagating is as important as anything, yet the care of the plant in the benches should not be overlooked. Carnations that have been flowering heavily right along will have exhausted the soil of its food supply, and feeding should be resorted to in order to keep the plants going.

Well decomposed cow manure is a good fertilizer to use. Next comes horse and sheep manure. Avoid heavy doses of either; frequent and light applications are best for the welfare of the plants. There will, however, be less danger of setting up a soft growth from an overdose of stimulants now that the longer and lighter days of the New Year are near than has been the case during the past two months. In the way of watering as the month advances they will need a little more than they required during the short, dark days of the fall. Do not, however, have them soaking wet, as this condition will soon finish the best of plants.

GERANIUMS.

The potting of the geraniums that are needed for bedding out should be pushed ahead. We find it is always better to do this early so as to give the plants a long season of growth. Any that are now in two-inch pots can be moved to threes, and then later on they can be transferred from threes to fours. A good growing medium for geraniums is two-thirds turfy loam and one-third of thoroughly decomposed manure and a five-inch pot of bone meal to each barrow-load of soil. If, after potting, they can be placed on a bench that has heating pipes beneath, so much the better as they enjoy a little warmth after a shift. A temperature of 65 degrees during the day and 45 to 50 degrees at night is sufficient.

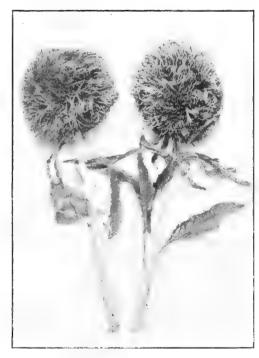
#### GARDENIAS.

The propagation of these subjects is only successful where a high degree of heat combined with a close and congenial atmosphere can be maintained.

A carefully attended propagation case comes nearest keeping the requirements. Cuttings require a bottom heat of 75 to 85 degrees, and a top heat of 10 degrees lower. Keep the sand moist and spray over head every morning. Shade and keep close until rooted. When they are well rooted pot them up using a compost of half leaf mold, half turfy loam, and some sharp sand. As they become established stand them on the bench of a sunny house with a night temperature of 65 degrees.

#### CELOSIA OR CHINESE "WOOL FLOWER."

This new Celosia Childsi, or Chinese wool flower, thrives under the same conditions that suit the common Cockscomb, and Celosia Plumosa. It is better to start the seed under glass about four weeks before the time for transplanting to the garden: If the little plants remain too long in pots they will begin to develop bloom, which may result in a stunted growth after they are planted out. Set plants no nearer than  $2 \times 3$  feet; at this distance they will cover the space completely and make a solid mass of color. The type is remarkably true and uniform, but it will mix with



CELOSIA CHILDSI.

Celosia Plumosa if grown near and the seed from such mixture will produce an inferior plant.

The seed was sent to John Lewis Childs from China four years ago. He has grown it for three seasons and has found it is as easy to cultivate in the garden as any of the Celosias. The blooms begin to develop in July, and continue to increase in size and numbers until killed by the frost; none of the blossoms fade until injured by cold weather. It grows about two feet high, branches freely; each plant shows twenty or more main heads of bloom, but every stem is full of laterals showing small bloom. It is a very shy seeder, some plants producing no seed at all, and others only a dozen or two. It is said to be one of the best and most showy all-round annual in cultivation. The color of the flower head is rich crimson, and the

measurement, the circumference of the flowers illustrated, was  $13\frac{1}{2}$  inches. The stems are half an inch thick.

#### A NEW SEEDLING EREMURUS.

BY W. H. WAITE.

The hybridist has been at work, and that he has been successful is easily seen. There are several hybrids already offered, e. g., Sir Michael, Shelford, Tubergeni Wallacei, and Waree. Wallacei is probably the best of all.

These noble plants should be more widely planted than they are, and good strong roots should be procured, as the results from small and cheap roots will be slow and disappointing. As soon as the hybrids become more widely known, they will be more in demand than the species, for they are more beautiful, more robust, and freer flowering. They also increase more rapidly, and thrive under conditions which are too trying for the earlier flowering varieties.

That they are perfectly hardy and can stand severe weather is borne out by the fact that one of the finest groups I have seen of these plants in this country was at Lake Forest, Ill., where the thermometer frequently goes down below zero.

#### CULTURAL NOTES ON ERICAS.

Ericas are as simple to grow as a geranium. They are a cool house subject in the winter months. I find a temperature of 45 minimum and 55 maximum ideal. The temperature of 55 is not so dangerous when the flowering commences. They are mostly all winter flowering. The most common variety in greenhouses is the variety Melanthera, which flowers at Christmas. This is a rapid grower. I found President Carnot a splendid variety for decorative work. As a house plant, it lasts well. It has long, tubular pink flowers. Other floriferous sorts are Persoluta Alba, Cavendishii and Wilmoriana. Ericas are becoming favorites for Christmas and Easter. After flowering is over by April, the spent flower should be trimmed off, the tips of growing shoots cut back and the plant kept in good shape. Any repotting should be done then. They generally improve with a shift from a 5-inch to a 6-inch pot. One pot larger is sufficient in all cases. Clean pots and good drainage are points not to be left out with hardwooded plants. The soil should be fine, to pack in firmly. Use loam and peat, equal parts, sand and fine charcoal. Pot very firm.

If plunged in ashes in the bench in the winter, it will protect the roots from being burned out. They are very fine and active next the pot. At the end of May remove the plants into a sunny aspect, not a half-shaded place. The summer treatment determines whether or not you will have flowers in winter. Plunge the pots to the rim in ashes in a place you are likely to come in contact with every day, as a weekly visit to these subjects is not sufficient. Attend to the supply of water for each pot as it dries out. A frequent spraying from a syringe or hose will keep them in good shape.

Allow the plants to stand out until the middle of October, or probably later. Cover them over on nights when a frost may come down suddenly. Do this rather than take them into the greenhouse too early.

In the fall they should be introduced into a very cool position. After Christmas give the plant more heat and pull out the flowers.—Canadian Florist,

THE

### GARDENERS' CHRONICLE

OF AMERICA.

Published by

#### THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK. MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50 Foreign, \$2.00 :: :: :: Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

Published on the 15th of each month. Advertising forms close on the 10th preceding publication.

For advertising rates apply to Robert F. Mac(lelland, 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### NATIONAL ASSOCIATION OF GARDENERS

President, WM. H. WAITE, Yonkers, N. Y.

Vice-President, J. W. EVERETT, Glen Cove, N. Y.

Treasurer, JAMES STUART, Mamaroneck, N. Y.

Secretary, MARTIN C. EBEL, Madison, N. J.

#### TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; William Duckham, Madison, N. J.; Alexander MacKenzie, Highland Falls, N. Y.; John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1915-John Shore, Harrison, N. Y.; Thomas Proctor, Lenox, Mass.; William N. Craig, Brookline, Mass.; Frank E. Witney, Fishkill, N. Y.; Robert Williamson, Greenwich, Conn.; F. Kirk, Bar Harbor, Me.; James Bell, New York, N. Y.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President,
GUSTAVE H. AMRHYN,
New Haven, Conn.

Scoretary-Treasurer, ROLAND W. COTTERILL, Seattle, Wash.

JOHN McLAREN. San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

Lice-Presidents, CARL W. FOHN, JOHN HENDERSON, Colorado Springs, Colo. Montreal, Canada. CHARLES HAIBLE, J. H. PROST, Chicago, III.

Vol. XVIII.

DECEMBER, 1914.

No. 8.

Mankind is ready to acclaim Amen to the year about to pass into history, which has witnessed the beginning of the most unhumanitarian conflict for supremacy in the annals of the world's existence, the outcome of which, and its consequent disastrous results to the European nations, no one can foretell, though no one will contradict that it could not be worse.

In our own glorious country we have been sufferers from political misdeeds and an economic strife, but yet we have much to be thankful for. We have at times within the year been confronted with critical situations which threatened warfare, but conservatism has enabled us to extricate ourselves from these complications and to maintain our peace. As the new year approaches a wave of optimism over our immediate future outlook is casting pessimistic sentiment aside, and prosperity again looms up for our vast industrial enterprises. While our sympathies go out to our European brethren, with our wishes that peace for their countries is not far distant in the new year, we extend the season's greetings to our readers with a confidence that a general prosperity will overtake our nation during the year 1915.

"Freely you have received, freely give." The demands upon our people to aid in relieving humanity's sufferings caused by the European warfare have been great, and have been liberally responded to. But to take the bread from one to aid another is not charitable, nor is it right. The press is exploiting the doings of our wealthy classes in behalf of European charity, and much undeserved publicity is gained by some. We have an instance in mind where a wealthy estate owner has cut the wage of his laborers one-third because, as he says, the demands on him to aid the distress in Europe is such that he must reduce his expense elsewhere. He has been credited as a liberal contributor to several funds, but is it his money which he donates to this charity? A part, at least, is that of his working class which has become a sufferer as a cause of his liberality in another direction through withholding what they are rightfully entitled to for their hire. His offense is aggravated by the fact that his resources have not been affected by the war, but are being added to through his business enterprises, which are directly benefited by the demands of war. To such men we say—let your charity begin at home.

#### CO-OPERATION.

There is nothing new or untried in the broad principle of co-operation. In the last analysis, co-operation is only another name for civilization. As John Stuart Mill has said: "Almost all the advantages which man possesses above the inferior animals, arise from his power of acting in combination with his fellows, and of accomplishing by the united efforts of numbers what could not be accomplished by the detached efforts of individuals." From the dawn of history, men have co-operated to secure the benefits of safety, progress and justice, and have called that cooperation Government. They have united to produce the manifold necessities and luxuries of life and have called that co-operation Industry. They have talked together of the eternal mysteries, they have gathered together to worship the Supreme Being, and their name for this sacred co-operation is Religion. The greatest and most lasting undertakings of the human family have come in accordance with the Biblical injunctions, "Bear ye one another's burdens." "Ye are members one of another.

What has been accomplished through co-operation in other fields can be accomplished through co-operation in the field of agricultural reform. All that is needed is the intelligence to perceive the benefits to be derived, and the determination to secure these

Our fields are fertile, our people are the peers of any in intelligence and industry. And there is no better cause in which to struggle than the cause which has for its end the easing of the burdens which press upon the heavy laden. And those who are engaged in the good fight, who are dedicating their efforts to cooperation as the surest and wisest medium of economic progress, may well take for their motto the inspiring words of Edward Everitt Hale:

"Look up and not down, look out and not in, look forward and not back—and lend a hand."—Gov. Glynn,

New York.

### NATIONAL ASSOCIATION OF GARDENERS

W. H. WAITE, President, Yonkers, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

The annual convention of the National Association of Gardeners was held at Horticultural Hall, Philadelphia, on Wednesday, December 9, 1914. There was a good attendance of the membership, including gardeners and superintendents of large estates from different sections of the country.

The session opened with a business meeting at 2:40 o'clock p.m., when, following the reading of reports and the election of officers for the new year, an address was delivered and a paper read upon interesting topics, and an entertaining and instructive illustrated

lecture given on roses.

President W. H. Waite, of Yonkers, N. Y., presided. J. Otto Thilow, of Philadelphia, in welcoming the visitors said:

I am very much pleased to be delegated to welcome, on this occasion, a body not of tradesmen or mechanics, but of artists, of men who are the heads of the profession. Gentlemen, you represent a business which is one of the most beautiful, one which beautifies our homes, our cities and our land. Philadelphia has a natural right to receive you cordially because it is the leading horticultural city of this country. The first Botanic Garden is situated here, and the first essay on botany was written by John Bartram, of Philadelphia. We may not have the largest public park in the world, but we have 3.920 acres of parks in Philadelphia. In gardens we have some of the best private show places in the country. We are glad to have within our circle this afternoon men who are the leaders in horticulture and the managers of gardens which have always been known as exemplars among private places in this country.

I take special pleasure in welcoming the members of the National Gardeners' Association to Philadelphia because there is always so much here to be seen and appreciated by men directly interested in horticulture. It is my privilege, on behalf of those of your members who reside here and on behalf of the City of Brotherly Love, to bid you a hearty welcome and to assure you of the utmost freedom so that you may go about without restraint in acquiring information and go home refreshed in that

vocation in which you take such great interest.

I delight always in mingling with my brother florists, having been one of them all my life, because they are men of brawn and brain, men who take delight in their business. We have been told that if a man has no enthusiasm or love for his vocation his life will be a failure, and so will be his business. But we are glad to realize that that does not apply to us. The men who are employed directly in this vocation, even those who are in it indirectly, are men who have taken great enjoyment in it and who have been a blessing to us.

I will not burden you with any more words, but will place you at once in the hands of your President, who is here. emblem of his authority is the gavel, and you have always respected it as such. I take pleasure in presenting to the society today, through its President, a gavel which has a history.

(The speaker here presented the gift.)

The stem of this gavel is from the cedars of Lebanon that were brought to this country from Mt. Lebanon by a U. S. naval officer, N. B. Moody, in 1877. The piece of bronze in the end of the gavel (and which very often perhaps will be used to command your attention later) is a relic of the steamship Maine, which was destroyed in Havana Harbor, prior to the Spanish-American war. Now, as the material of this gavel was taken from those cedars of Lebanon, those trees which were felled by King Hiram for that wonderful temple and were transported overland from Joppa and became the support of that temple, so may the members of this association be the steady supporters of their President and of those who shall lead them hereafter in the maintenance of an organization which, in years to come, will be such that our land will be made beautiful by it. And when the sound of this gavel is heard, remember that the loyal men who went down in the Maine, from a cause we know not of, were faithful to their business; and so may you continue to be devoted to your profession, one which you appreciate and love and one which we

Mr. President, I place this gavel in your hands and leave it in charge of the association. (Applause.)

PRESIDENT WAITE expressed his appreciation of the gift and the thanks of the association to the donor.

MR. THILOW here added that he had forgotten to mention the important fact that the gavel was a present from Geo. W. Hess, superintendent of the Botanical Gardens at Washington, D. C. He thought it was entitled to additional respect as coming from the head of the chief institution in this country of the profession which the gardeners followed. (Applause.)

Subsequently the thanks of the association were voted to Mr. Hess for his beautiful gift; whereupon that gentleman came for-

ward and bowed his acknowledgments.

Routine business was then proceeded with.

The minutes of the last preceding annual meeting were read by Secretary M. C. Ebel, of Madison, N. J., and, on motion, duly seconded, were approved as read.

The minutes of the Executive Board meeting, in Boston, on

August 14, 1914, were read and, on motion, duly seconded, ap-

SECRETARY EBEL then read the annual report and financial statement of the Secretary, which follows.

#### SECRETARY'S REPORT.

The past year has been an active one within the National Association of Gardeners.

In pursuance with the By-Laws the follows directors were appointed by President Waite on January 1, 1914, to serve for three years: A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneappolis, Minn.; William Hertrick, San Gabriel, Cal.; Robert Bottomley, New Canaan, Conn.; Robert Angus, Tarrytown, N. Y.; Alexander Fraser, Newport, R. I.; Arthur Smith, Reading, Pa. To serve for two years to fill the unexpired term of John W Everett, elected vice-president, James MacMachan, Tuexdo Park

The first meeting of the Executive Board for the year was held on Thursday, January 8, 1914, in the Murray Hill Hotel, New

York City.

The subject of a closer co-operation between the National Association of Gardeners and the various local horticultural and garden societies was brought before this meeting, and your secretary was instructed to write to the different horticultural societies suggesting co-operation between the national association and the local societies in the interest of developing horticulture and advancing the profession of gardening in this country.

It was decided at this meeting to strictly enforce the clause of the By-Laws calling for the suspension of members in arrears of

dues for more than two years.

The spring meeting of the Executive Board was held in Horti-cultural Hall, Philadelphia, Pa., on Tuesday, April 7, 1914.

The revised By-Laws of the Association submitted by the By-Laws Committee, composed of John W. Everitt, M. C. Ebel and John F. Johnston, appointed at the 1913 convention, were approved by the Executive Board, and ordered printed in book form to be distributed among the members.

At this meeting the following resolution was adopted:

"The response to the communication on co-operation recently addressed to the local horticultural societies by the National Association of Gardeners has been so favorable it is the sense of the members of the Executive Board present that definite action should be taken to inaugurate the co-operative movement between the national association and the various local horticultural societies who may desire to unite with it to advance the interest of horticulture and the profession of gardening.
"Therefore, be it resolved, That the secretary be instructed to

address the various local societies, inviting those interested in our endeavor to appoint committees of three to be known as the Cooperative Committee of the local society of which they are appointed. These committees will act with the Co-operative Committee of the National Association of Gardeners, to be composed of the president, vice-president, treasurer and secretary of the National Association, and to be known as the National Co-oper-

ative Committee.

"The National Committee shall inform itself, through the local co-operative committee, of the workings and doings of the different local organizations, and gather such information as may be of interest and value to local horticultural bodies in their operations. and shall disseminate such information as it may acquire among the societies co-operating with it. Through such an interchange of views and experiences the successful efforts of local socities, in their various undertakings, will be imparted to sister societies, by

which they can benefit, and their scope of effective nork be increased.

"The National Committee is further empowered to enter into co-operation with beal horticultural societies in the broadest sense that the word 'co-operation' may imply, to spread the interest of horticulture and to decise ways and means by which the various local societies shall have actual representation at the annual conventions of the National Association of Gardeners where they may come together and work out the problems which confront the profession of gardening."

Arthur Smith, of Reading, Pa., submitted the following reso Intion:

"In view of the national character of our association, our president has rightly appointed to the Executive Board members residing in all parts of the country. At the same time it is obvious that the attendance of all members of whatever place meetings may be neld is practically an impossibility. As it is essential that every member of the Executive Board should take an active interest in the welfare of the association and should have opportunity of doing so afforded him to make suggestions in connection with, and offer opinions upon the policy of, the association; therebe it resolved, That an invitation be extended to members of the Boara, that when they cannot attend a meeting they submit an, suggestions they may have to offer in writing that can propcrly be brought before the meeting, and, that it shall be given the same consideration as though the member offering it were present in person."

Which was also adopted.

The summer meeting was held in Copley Square Hotel, Boston, Mass., on Wednesday morning, August 19, 1914. Only routing

business came before this session.

More their litteen hundred individual communications have been sent out by the secretary's offlee within the past year in relation to the Service Bureau and the co-operative movement, and in reply to general correspondence to the office. In addition, many circular letters were issued on the co-operative movement, directed to the various local societies and in the campaign for new member-

The Service Bureau has been successful in placing a number of members as superintendents, as gardeners and as assistants during the past year. The work this Burcau has so far accomplished is encouraging, and as it becomes better known will present greater opportunities to the members of the association. Through the co-operative morement it is planned to make the service of this

Bureau a far-reaching onc.

The recommendations of the Co-operative Committee, embodied in the report it is submitting, should receive the careful consideration of the convention. The success of the National Association depends on what it can do for its members. If the members. through their local societies, with which they are affiliated, will give their national organization the support it should have in the co-operative morement between the national and local societies it will accomplish much for the benefit of gardening and those who are associated with the profession.

M. C. EBEL, Secretary.

M. C. EBEL, Secretary.

#### SECRETARY'S FINANCIAL STATEMENT.

Madison, N. J., December 8, 1914. RECEIPTS.

Dues received for 1912  Dues received for 1913  Dues received for 1914  Dues received for 1915  Reserve fund (life membership, J. W. Everitt)  Reserve fund (contribution)  Service Bureau (contribution)	1.00
Total	
PAYMENTS.	
Deposit vouchers to treasurer, Nos. 67 to 84	. \$1,132,00
Deposit vouchers to treasurer (reserve fund)	
Cash on hand	83,00
Total	.81,241,00
Expenditures of the Secretary's office for the past been as follows:	year have
Stamps	\$67.31
Telephone calls and telegrams	10.61
Stationery	1.83
Express charges	
Extra stenographer's services, circularizing, etc., for Se	
ice Bureau and Co-operative Committee and sundry penses Secretary's office	
penses Secretary's office	. 32,007
Total	\$132.19

Philadelphia, Pa., December 9, 1914.

We have completed our audit of the accounts of your Secretary up to December 8, 1914, and are pleased to report that we find the statements as rendered above to be correct.

WM, KLEINHEINZ JAMES MacMACHAN, ARTHUR SMITH. Auditing Committee.

On motion, duly seconded, the same were adopted and ordered to be filed.

TREASURER JAS. STUART, of Mamaroneck, N. Y., presented and read his annual report, which follows.

#### TREASURER'S REPORT.

Mamaroneck, N. Y., December 8, 1914. RECEIPTS. Nov. 1, Balance in bank (reserve fund)..... 26,00 Nov. 1, Balance in bank (general fund) 361.31 Deposits Dec. 19, 1913, to Dec. 7, 1914, vouchers Nos. Deposit vouchers reserve fund, Nos. 2 and 3...... 26,00 Dec. 15, 1913, interest..... 4.57 June 15, 1914, interest..... 10.62

Total .	 81,554,50
10(31 ,	21,001,000
1913. DISBURSEMENTS,	
Nov. 13, Herbert Hughes, photos 1913 convention	8.00
" 43. James Bogert, printing	2.25
" 13, Madison Eagle, printing	8.40
" 13, M. C. Ebel, secretary, postage and sundries	13.63
" 13, Austin C. Sayler, stenographer, report 1913 Con.	
1914.	
Jan. 13, Gude Bros. Co., basket roses (Wilson-Sayre wed-	
ding)	14.00
" 43, Madison Bagle, printing	21.50
" 13, Murray Hill Hotel, rent parlor executive meet-	
ing	5,00
" 13, M. C. Ebel, secretary, postage and sundries	25.93
" 13, Chronicle Press, subscriptions to Jan. 1	58.00
" 14, J. C. Chester, appropriations to Secretary's as-	00.00
sistant	12.50
Apr. 6. M. C. Ebel, Secretary, postage and sundries	23.57
6, J. C. Chester, appropriation to Secretary's as-	20.01
sistant	12.50
" 17, The Field Illustrated, adv. Service Bureau	13.44
" 17 Horticulture advertising Service Bureau	18.00

" 17, Horticulture, advertising Service Bureau	-18.90
" 17. Madison Eagle, printing	-11.00
June 12, Madison Eagle, printing	20.00
July 1, Chronicle Press, subscriptions to July 1	384.00
1, J. C. Chester, appropriation to Secretary's as-	
sistant	12.50
" 1, M. C. Ebel, Secretary, postage and sundries	18.01
Sept. 23, Douglas A. Brown, stenographer, report summer	
meeting, 1914	-15.00
" 23, Madison Eagle, printing	17.50
Oct. 1, J. C. Chester, appropriation to Secretary's as-	
sistant	-12.50
Nov. 25, Madison Eagle, printing	3.50
" 25, M. C. Ebel, Secretary, extra stenographer's serv-	
ices, circularizing, etc., for Service Bureau, and	
Co-operation Committee and sundry expenses	
Secretary's office	52.00
6 27 37 6 73 1 6 1 1 1 1 1 1	10 June 100 Feb.

25, M. C. Ebel, Secretary, postage and sundries.... 17.57Total 8811.22

7, Balance in bank (general fund).....\$697.28 7. Balance in bank (reserve fund)...... 46.00 743.28

Total 81.554.50

JAMES STUART, Treasurer. Philadelphia, Pa., December 9, 1914.

We have completed our audit of the accounts of your treasurer up to December 8, 1914, and are pleased to report that we find the statements as rendered above to be correct.

WM. KLEINHEINZ JAMES MacMACHAN, ARTHUR SMITH. Auditing Committee.

On motion, duly seconded, the same was received and ordered to be filed.

THE PRESIDENT announced as the next order of busics reports of standing committees.

The only response was from the Committee on Co-operation, whose report vas read as follows,

Your Co-operative Committee, appointed to enlist the local horticultural societies in a national co-operative movement for the general uplift of gardening and to arouse a greater interest in horticulture, submits the following as its report of the year's work.

On April 10 the committee sent a communication to all horticultural societies and clubs having, to its knowledge, gardners enrolled in their membership and had the same published in the trade papers, inviting the local societies to co-operate with the national association in the proposed co-operative movement. Twenty-one societies responded favorably and one unfavorably. Favorable action was taken on the communication by other socicties, but the committee has as yet received no official notifications of such action, and those are not included in those reported as responding favorably.

Your committee being encouraged by the results of the communication inviting participation in the movement, is sued the following

bulletin on October 19:

"The National Co-operative Committee, appointed at the meeting of the National Association of Gardeners held in Philadelphia in April, 1914, to decise ways and means to make the proposed cooperative movement between the National Association and local gardeners' clubs and societies operative, submits to the local cooperative committees, appointed to work in conjunction with the National Co-operative Committee, the prime objects of the movement, which are as follows:

To establish gard ning as a profession on a more firm tounda-

tion in America.

To develop a closer fraternity between those engaged in the

profession of gardening and those interested in it.

To make known that the vocation of gardening is not acquired through one or two seasons of work in the garden, but through a thorough training—which demands both a practical and scientific knowledge gained only through years of study.

To provide an educational course whereby those ambitious to gain a general knowledge of the different departments of their profession, and not in circumstances to secure it at college, may

obtain it through their national association.

To make the Service Bureau of the National Association of Gardeners an institution to which those requiring the service of gardeners in their various capacities will turn with confidence for their requirements.

To encourage an exchange of views and the disseminating of reports of the doings and activities of the various local societies, whereby the experience of one society may aid in the development

of the other societies.

To bring about more uniform conditions to govern flower shows, through the adoption of rules and regulations and an official scale of points for judging flowers, fruits and regetables by the various horticultural societies, which could be applied to all shows conducted by clubs and societies participating in the cooperative movement.

To arouse the interest of estate owners and others interested in gardening in the activities of the local societies and the

national association.

"The foregoing are a few suggestions of what the plan contemplates. The National Committee recommends that the local committees submit these suggestions as a subject for general discussion at a meeting of their society, with a rick of bringing out some thoughts which may aid the cause. It especially solicits suggestions and epressions of sentiment respecting the proposed establishment of flower shows on a uniform basis by the adoption of standard rules and regulations and a schedule of points for judging to govern them.

"It seeks advice on the establishing of an educational department for the benefit of those who may want to avail themselves of study courses, and suggestions on how the Service Bureau may be conducted to provide opportunities for the many rather than the few. It should be national in scope, yet local in operation, in that the local societies shall have a roice in the filling of positions in their

communities.

"The National Committee asks that the local co-operative committees report to it any recommendations their societies may have to offer; also any suggestions the local committees may deem will

further the movement."

Through reports in the press, and through other indirect sources, your committee has learned that this bulletin was received with favor at meetings to which it was presented; but your committee has not been generally aided through the local co-operative committees with criticisms or suggestions to present to the convention.

Among the recommendations offered in answer to Bulletin No. 1 are:

The printing in leaflet form of the aims and objects of the N. A. G. for distribution among local societies, so that those who are not yet members of the national association may acquire an understanding of its purposes.

That the local societies submit their present rules and regulations, together with their scale of points for judging at flower shows, to the National Co-operative Committee from which the said committee shall draw up a standard set of rules and regulations and scale of points, which shall be adopted by all the societies.

That the National Association of Gardeners, through working in conjunction with State Agricultural Colleges, obtain from them the scientific instructions necessary to supply to correspondence classes, and a fee charged for the maintenance of the

classes to members enrolling in them.

That the co-operative movement be extended to the national and local garden clubs, a large number of whose members are estate owners, to establish a closer fraternity between those engaged in the profession of gardening and those interested in it. Your committee submits as its opinion that cooperation of a national scope between our organization and the local horticultural societies can be successfully established, providing the support it is entitled to will be forthcoming from the local co-operative committees, which must manitest both interest and activity in the cause. In this connection we quote a famous economist on behalf of co-operation, "Let the work be parceled out with the genius that you, who know the value of organization, of co-operation, in the management of your own affairs, have proved you possess. See that the wisest and ablest men of your organization are placed in the executive positions. Make of yourselves such carnest and ablo lieutenants that the detail of organization may be complete and effective. Understand fully that this means self-socrificing service; that it recans expenditure of time and that it means co-operative effort."

W. H. WAITE. J. W. EVERITT, JAMES STUART, M. C. EBEL.

On motion, duly seconded, the report was received and ordered to be filed.

Communications were read by Secretary Ebel, inviting the association to hold its next annual meeting in certain cities, and also from local growing establishments and norseries about Philadelphia, extending hospitalities.

On motion, duly seconded, the invitations were received and

ordered to be acknowledged.

THE PRESIDENT announced as the next business the election of officers for the ensuing year.

W. R. Pierson, Wm. Sperling and J. Collins were appointed by

the Chair as tellers in the election.

Nominations were made, but one candidate being named for each office. Pursuant to the instructions of the convention, the Secretary cast one ballot for each candidate named. The result of the election was reported as follows: President, W. J. Everitt, Glen Cove, N. Y.; Vice-President, W. S. Rennie, San Francisco, Cal.; Secretary, Martin C. Ebel, Madison, N. J.; Treasurer, Jas. Stuart, Mamaroneck, N. Y.

The convention proceeded to elect trustees for the ensuing year. Nominations were made and a ballot taken, the following being elected: Trustees Wm. Kleinheinz, Ogontz, Pa.: Peter Duff, Orange, N. J.; Geo, W. Hess, Washington, D. C.; Wm. Turner, Mendham, N. J.; John H. Dodds, Wyncote, Pa.

Under the order of new business, John Johnson, of Glen Cove, Y., urged the propriety of providing for the appointment of State Vice-Presidents. He said he thought that such officials would help to enlarge the ranks of the membership and disseminate interest in the association, especially in the West.

SECRETARY EBEL intimated that the effect of this might be to supersede the directors, and explained that the proposition would require an amendment to the by-laws

MR. JOHNSON said be anticipated that the amendment would be necessary, and that, if advisable, it could be made at the next annual meeting.

PRESIDENT WATCE remarked that he regarded the proposition as properly one for consideration by the Executive Board.

MR. JOHNSON gave notice that he will offer a resolution for an amendment of the by-laws at the next meeting.

PRESIDENT WAITE, having completed the regular order of business, invited discussion upon general topics. He then called on Mr. Therkildson.

MR. W. F. THERKILDSON, Philadelphia, responded. He said in part:

"Mr. President and Gentlemen: I open by saying that you came very near hearing from one who has done something in the horticultural or agricultural world. In calling upon me the other day. Mr. Ebel came to a sort of 'fill in' man, because another, Mr. W. Atlee Burpee, could not be secured by reason of previous en-When I came down here Mr. Ebel assigned to me the gagements. subject of 'The Progress of Horticulture in America'; but as I looked around this audience and saw the faces of the representative men who are here it dawned upon me that Mr. Ebel had not only perpetrated a joke, but inflicted a hardship upon me. I asked him how long I would be expected to talk, and he said, 'Suit yourself about that; some speakers are liked the longer they

talk; others, the sooner they finish,' No doubt you will feel

relieved when I finish. (Merrument.)
"With the President's permission, I venture to broaden the subject a little to that of the progress of horticulture, agriculture and the allied industries; because, according to the technical definition of it, horticulture is confined to a knowledge of trees, shrubs, etc.; and the progress of horticulture in America has not been as rapid as it might have been; in other words, the progress of some of the other associated industries, for instance, the great nurseries, has been far more rapid.

"In reflecting upon how to broaden the subject of the advance of horticulture I felt anxious to learn something of the popular notion of horticulture, or what it was commonly understood to mean. With that idea in mind, the other day, I called in one of my assistants whose business it is to file all the publications that come in, and, addressing her by name, abruptly asked 'What is horticulture?' Instead of giving a definite answer she ex-claimed, 'Why, Mr, Therkildson, is it possible you don't know what horticulture is? Horticulture is a paper published in Bos-(Merriment)

"Assuming that I have the privilege of broadening the subject, I will say that the progress of horticulture, agriculture and the allied industries has been very rapid in America, more rapid than that of any other industries in the world. It has been said, and no doubt with truth, for I do not know that the statement has been controverted, that America leads the world in commercial growing under glass. I assume that that is a fact that will not be disputed, but I am not so well qualified to speak of it from personal knowledge as I am to speak of seed growing, although I was associated with the world's greatest combined nurseries for

"My early days were spent on a greenhouse and nursery place of minor importance in southern Ohio. My father came to this country from Denmark with a knowledge of horticulture gained by experience—a practical, not a technical knowledge—and was first employed by one of the largest nursery organizations in Ohio. Later he went into business for himself in a small way. My earliest recollections are of greenhouses and nurseries. I had, as I have said, a hardy Norseman for a father, who knew no pleasure except in his work, who got a dollar and kept it, who never thought of making a dollar earn a dollar; and in those days flower pots were not so easily or cheaply gotten. As a small boy flower pot washing was the bane of my existence. As I have mentioned, we had a small greenhouse range of some twenty to twenty-five thousand feet of glass, and I insist that it seems we had more flower pots than the balance of all the nursery concerns combined. I do not know that any of you have undergone that experience, perhaps many of you have. After a few years, as I grew larger and stronger, I was given a position in winding after the budders. I became a winder. Perhaps some of you have done that. I was very hard work. envious of the man who wielded a knife. After a time I had experience enough to use a budding knife. I was very proud of it. When I went out the first time I butchered many thousands of roses and trees, but finally acquired the art, became proficient and got a place where I could bud from three to four thousand a day on an average. I feel that this experience enables me to speak without any guesswork, and gives me a right to judge in a way of the progress of horticulture and agriculture. My home place was a combined nursery and greenhouse. We also sold some market gardening and did everything to keep going.

thousand miles and lifted countless tons of earth. "I remember well when a place that had twenty-five thousand feet of glass was a big place commercially. Today such places are not counted in figures of square feet, but in acres of glass and, with their large complement of men and equipment, are nothing short of marvelous.

raised a little celery. We had no modern celery tiller at that

time, and I had the pleasure of raking it up by hand. I believe

that I have crawled along celery rows to the distance of several

"I gathered from my conversation with Mr. Ebel that what I would say here was to be regarded as, in a way, a talk to private gardeners, but I am going to indulge in a little more latitude for my remarks. When one considers the size of these indestries statisties do not mean much, because we speak of a million as glibly as we speak of a thousand feet. Few have any conception of what a million really is; but when we come to the nursery and speak of millions, two or three or, in some instances, four or five millions, as there are in some of the nurseries today. the amount of work which those figures may be taken to represent is so enormous that it is not readily apparent. I mention, by way of illustration, one nursery concern with which I was connected for several years, and which has a reputation of being the largest combined nursery in the world. That particular concern has some twenty-two hundred and fifty acres in active cultivation. I mean by active cultivation in continuous rotation crops. The firm owns in pieces, in widely separate pieces, several thousand acres of land. One of its organizations is said to have 255 miles of tile drainage. This tile drainage system is blueprinted and platted, so that stoppage may be locked without any trouble. Few people even in the trade have an adequate conception of the magnitude of this particular concern. For instance, peach pit seeds that we used for planting were not bought in bushels; they were bought in car loads. At one time several car loads of North Carolina and South Carolina peach pits were brought in, and one car load was kept for sale to small nurseries throughout the country. On that particular nursery quite a number of reach pit planting machines are employed. Those a number of peach pit planting machines are employed. machines operate in a way similar to potato planters. The peach pits are screened and assorted to size to fit the machine without stopping it, and the resultant growth of the seed evidences the accuracy of the work of the machine, the same being most regular and at almost equally divided intervals. On this nursery there were budded some seven hundred and fifty thousand roses. At the time I was connected with it there were thirty-five acres of own root stuff with pears, apples and plums running into hundreds of acres and ornamentals occupying immense areas.

"In the East we have other nurseries of more or less different character. There is located near Philadelphia one of the largest

organizations of its kind in the world.

'Colossal nursery industries are not confined to any one section. In the far South there are enormous areas devoted to nursery culture. In Louisiana and Missouri, we have the great nurseries. In Iowa, we have several large concerns. Around Rochester and Danville, N. Y., are big organizations. In North Carolina we have a famous nursery. In Connecticut there are big nurseries, and right around Philadelphia we have several of the foremost nurseries in America. Around Gulfport, Biloxi and Bay St. Louis, near Mobile and in southern Mississippi the radish industry is immense, one grower having fifteen acres in continuous cultivation in radishes. They are put in by seed drills, cultivated by hand, by wheel holes dug with a Platt Junior onion digger, and are rapidly washed by means of a large cement tank in which is a revolving brush. The radishes are held up against the brush and cleansed. They are then put on a table, bunched and packed in barrels or boxes for the Southern market. A long radish is required for the Southern markets, that being the more popular in the South. For the Northern market the round types are grown. The effort in out-door growing in various sections of the country, in the vegetable industry particularly, is simply stupendous. One organization near Medina, Ohio, estimates that the return from their product in onions and celery, this year, will reach the enormous sum of one million dollars. This organization is known as a commercial celery concern.

"The seed industry in this country has grown to immense proportions. There was a time when Peter Henderson and Dreer were, to use a common phrase, 'all there were to it' in the United States. Numerous concerns have come into the field, and today the quantity of seeds handled daily in the trade is so immense as to be almost beyond competition. Having given many years of my life to the seed business, I claim to have some familiarity with it. As it is commonly defined, the business embraces the handling of bulbs and in some instances even tree seeds. Philadelphia might be termed the headquarters of the industry in this country, but the distinction would be due rather to the number of firms engaged in the business here than to the size of any one concern. In the Northwest there are great establishments, of which we hear little, that do individually more business than was done by all the seed concerns in the entire East twenty-five

years ago.

"When visiting a Canadian concern, not long ago, I was told that they had there about two million pounds of turnip seed in I also saw there in storage tremendous quantities of storage. bect and other varieties of seed. This concern occupies some twelve or fifteen acres of floor space in buildings of most modern and uniform construction. I was teld on good authority, and have reason to believe it, that the concern's investment in commission boxes runs into millions of dollars. That may not be an accurate estimate, but I do know that they have their own box commission plant, printing and lithographing facilities in order that their output in books, boxes and lithographs may be under their own control.

"I have heard it said that in California three thousand acres

are devoted to the growing of sweet peas alone.

"Nowadays the woman who comes to a nursery concern knows exactly what she wants. Women's clubs and garden clubs have done much to educate a woman not only as to what she wants but as to the correct nomenclature and characteristics of the varieties desired. You are no longer dealing with a person who does not know what she wants. So I say that the gardener, to be of real value, must continually strive to improve his knowledge and his service; and with this improvement will come the proper remuneration. The lack of knowledge on the part of people who are procurable to do the actual work of gardening is doing more perhaps to prevent the growth and progress of horticulture in America than anything else. There are many men who are properly equipped for it, but that does no credit to America. It is a curious fact that all the effort of real value that has been made in America has been made, as a rule, by men who were trained in Europe and who learned their work under the proper conditions and in the thorough manner in which they were trained up. We have some notable instances of great financial success, in business in general, among men who were raised and reared under American conditions; but our lack of doing things thoroughly is responsible perhaps for the lack of advancement in horticulture and agriculture in this country

"I might talk all the afternoon upon the growth of agriculture. I am more familiar with that topic than with motor plowing, soil formation, chemical fertilization, etc. Those subjects may be dwelt upon for hours. But I want, from my viewpoint, to advise that men who equip themselves for service as gardeners make an effort to know all that is possible in the profession of gardening. Some men may know gardening, some know motors, some know golf links, some know tree surgery, some know strains, some are entomologists and what not; but the gardener, to be perfectly equipped, must know much of each of these.

"As a last thought I wish to quote the expression of some great man who has said: 'We do what we are on account of impulses given us by previous training, previous acts or conditions, under which we live and have lived.' So I advise: Know what you want to do, hold that thought firmly and do each day what should be done; and every sunset will see you that much nearer the goal, whether it be in gardening or any other profession. I thank you for your attention." (Long continued applause.)

On motion, the thanks of the association were voted to Mr.

Therkildson for his interesting address.

The next business was the reading of a paper prepared by Mr. Richard Vincent, Jr., of Whitemarsh, Md., on "The Gardener of the Past and the Future."

The paper was read by Secretary Ebel and listened to with much interest. (This paper is published in another column of this issue.)

On motion, duly seconded, a vote of thanks was tendered Mr. Vincent for his paper.

The last session of the afternoon convention was in the nature of an instructive entertainment when Robert Pyle, president of The Conard & Jones Company, delivered his lecture on "Roses at Home and Abroad" The illustrations of some of our best roses, and most noteworthy rose gardens in this country and Europe, were for the most part in color, and contained many suggestive ideas with reference to layout, arrangement, etc.

First of all, Mr. Pyle described the Rose Festival Week of Portland, Ore., picturing first the luxuriance of roses with which even the streets there are beautified, and then showing the parades and automobiles, hores-drawn vehicles, children, etc., to which the entire week is given over, with views of rose gardens down through California, and then East throughout New England. Mr. Pyle took his audience to the rose growers of England, where he had visited the nurseries of Wm. Paul & Sons, of Waltham Cross; of Hugh Dickson, of Belfast, Ireland, and Alexander Dickson, of Newtonards; of S. McGredy & Sons, of Portadown, Ireland. He then described the great popularity of flower shows and rose shows in England, showing an attendance of no less than 2.000 people ten minutes after the opening hour on the day when the admission price was one guinea (over \$5 apiece).

Then crossing the English Channel to France he described the International Rose Show, where judges meet from all the nations in the Bagatelle Rose Garden, belonging to the city of Paris. in a park that is now overrun with sheep, or was, in expectation of the siege of that city; then through the nurseries of France. especially those devoted to rose growing in Orleans, including the Levavasseurs, Barbiers, Benards and others; to the Lyon, famous for the roses of Pernet-Ducher, whose work in originat ing such roses as Sunburst, Willowmere, and many others with which we are familiar, was applauded. Hence, down the Rhine through Germany, into Luxenbourg, among the great growers of that country, and later he described in detail with colored illustrations the beautiful garden of Monsieur Gravereaux, the Roseraie de L'Hay, near Paris, with something like 6,000 different varieties, and five to six acres devoted to the rose in the greatest variety of arrangement.

Mr. Pyle then brought his hearers back to America, described the success of the garden in Elizabeth Park, at Hartford, Conn., and the popularity which led no less than 35,000 people of Hartford and the surrounding country to visit on one Sunday this wonderful garden, the roses of which cover no more than one

With this as an example, and telling about the work which they have already launched, he described the efforts being made by the American Rose Society, who are now establishing an experimental rose garden in connection with the Department of Agriculture, at Washington, D. C., and Cornell University, and also with the Minneapolis Park Board, where all varieties can be tested and compared, and results distributed by bulletins to the people of the country. Mr. Pyle claimed that work of this kind, making it possible for the average citizen to see what can be done with roses, would send thousands of them home to do likewise in their own gardens, and would arouse the interest in this flower to an extent little as yet appreciated. He concluded with an appeal that his hearers should join in and support the work of the American Rose Society.

A vote of thanks to the lecturer was tendered amid applause.

The annual banquet of the association was held on Wednesday evening in Horticultural Hall, about one hundred members and friends, which included a number of ladies, attending. The banquet hall was beautifully decorated with plants and cut flowers, the work of the local Committee on Arrangements—Messrs, Logan, Kleinheinz, Dodds and Rust. One of Philadelphia's wellknown caterers supplied the menu, which was an excellent one, and every one appeared well satisfied with the manner in which the inner man was provided for.

At the conclusion of the dinner President Waite introduced J. Otto Thilow as toastmaster. Mr. Thilow proved himself an able master of ceremonies. President-elect John W. Everitt was called on to respond to the toast "The National Association of Gardeners"; then followed Robert Craig to the toast "Our Horticulturists"; James MacMachan, "Our Retiring President"; Wallace R. Pierson, "The American Rose Society"; William Kleinheinz, "The Chrysanthemum Society of America"; S. Mendelson Meehan, "The Nurserymen"; Richard Vincent, Jr., "Different Herbard, The Naiserymen; Michael Vincent, J., Different Kinds of Compensation"; John Westcott, "The Florist": Paul Huchner, "The Railroad Gardener"; Henry Michell, "The Seedsmen"; Arthur Smith, "The Ladies"; Charles Seybold, "The Gardener's Influence in a Community"; George C. Watson, "The Human Side of the Gardener."

W. J. Collins provided entertainment during the evening by rendering some old Scotch airs. Dr. P. H. Lane and Robert Chaig also entertained the diners with a duet which brought forth much amusement

Those who have been present at the former banquets of the association voted the Philadelphia event one of the most successful ever held.

Greetings were received and read from the following: President Theodore Wirth, Minneapolis, Minn.; President-elect Patrick Welch, Boston, Mass.; Secretary John Young, New York, N. Y., of the Society of American Florists; Charles H. Totty, Madison, N. J.; William F. Gude, Washington, D. C.; J. K. M. L. Farquhar, Boston, Mass.; Frank R. Pierson, Tarrytown, N. Y.; William J. Stewart, Boston, Mass.; J. Austin Shaw, Brooklyn, N. Y.

On Thursday morning the members assembled in the club rooms of the Philadelphia Florists' Club for the bowling tournament, the contest lasting throughout the forenoon. John W. Everitt won President Waite's prize for the highest score. The ten high scores for which prizes were awarded were as follows: John W. Everitt, 167, 191, 180; John H. Dodds, 210, 148, 177; William Robertson, 178, 176, 151; Samuel Batchelor, 171, 154, 179; Charles Seybold, 179, 167, 132; James Stuart, 157, 142, 154; Thomas Aitchison, 151, 118, 168; John F. Johnston, 147, 123, 161; Joseph Manda, 145, 122, 144; L. Ottman, 122, 140, 103.

Thursday afternoon some of the visiting members journeyed to the P. A. B. Widener, John Wanamaker and the Clement B. Newbold estates. Others visited the Dreer Nurseries. Riverton, N. J.: the Andorra Nurseries, Chestnut Hill, Pa., and the Michell Trial Grounds, Andalusia, Pa.

The meeting of the Executive Board was held at the Hotel Walton on Wednesday forenoon, preceding the annual meeting. The invitation of the Society of American Florists to affiliate with that body was brought up for consideration, and it was decided to defer action on it and first study the benefits the National Association of Gardeners would derive through affiliating with another organization.

It was decided to publish a list of the membership of the N. A. G. in the March issue of the official organ. The Gardener's CHRONICLE OF AMERICA. The question of providing a suitable button or emblem for members was discussed, and the subject laid over for future consideration.

The Committee on Awards reported as follows:

Association's certificate, for vase of carnations, Mrs. C. Edward Akehurst. Association's certificate, for a vase of roses, "Jonkherr L. Mock," exhibited by the S. Pennock-Mechan Company. Philadelphia, Pa. Special mention, for a vase of single chrysanthemums "Marguerite Waite" and a vase of "Erlangea tomentosa," exhibited by William H. Waite, Yonkers, N. Y. Special mention, for a dis-play of roses and mignonette by S. Pennock-Mechan Company. Special mention, for a fine display of ferns and foliage plants to Henry A. Dreer, Inc., Philadelphia, Pa. Special mention, for a display of high-grade bulbs, flowering shrubs, etc., to Hosea Waterer, Philadelphia, Pa.

The committee was not able to pass on carnation "Alice," exhibited by Peter Fisher, Ellis, Mass., as the flowers arrived in bad condition.

WILLIAM KLEINHEINZ, JAMES STUART. Committee on Mcritorious Exhibits.

The Committee on Final Resolutions reported as follows:

"Whereas, The Horticultural Society of Pennsylvania has so generously provided us with facilities within its building for the holding of our annual convention and annual banquet.

"Resolved, That the National Association of Gardeners tender to the Horticultural Society of Pennsylvania a hearty vote of thanks

and appreciation; and

"Whereas, The Philadelphia Florists' Club tendered to our members the use of its clubroom during their stay in Philadelphia and its bowling alleys for our bowling tournament.

"Resolved, That the National Association of Gardeners tender to the Philadelphia Florists' Club a hearty vote of thanks and ap-

preciation.

"Resolved, That the association tender a hearty vote of thanks and appreciation to W. Frank Therkildson, Philadelphia, Pa., for his instructive address; to Richard Vincent, Jr., for his interesting paper; Robert Pyle, West Grove, Pa., for his entertaining illustrated lecture at our convention; to J. Otto Thilow, Philadelphia, Pa., for his able services as toastmaster at our banquet; to David Rust for his valuable services before and during the convention; and to the local Committee on Arrangements, Thomas W. Logan, William Kleinheinz and John H. Dodds."

ALEXANDER MacKENZIE, ARTHUR SMITH, JOHN F. JOHNSTON. Committee on Final Resolutions.

#### AMONG THE GARDENERS

Arthur C. Ruzicka has secured the position of head Island. Considerable new development work is under gardener on the C. Oliver Iselin estate, Glenhead, Long way on this place with some new glass under course of construction.

William H. Griffiths, secretary of the Lake Geneva Gardeners' and Foremen's Association, and superintendent of "Altavista Farm," Lake Geneva, Wis., became the proud father of a bouncing boy the early part of this month.

Allan B. Jenkins resigned his position on December 1 as superintendent on the Bryce Estate, Roslyn, N. Y., and James McKay who was succeeded by Mr. Jenkins has been reappointed to the position.

John B. Sullivan, gardener to Charles T. Hoffman, Newport, R. I., is reported as slated for the appointment of postmaster of that city. Mr. Sullivan has served his community in the past as a member of the state legislature.

Edward T. McCarroll has been appointed superintendent of the D. Tatum estate, Glen Cove, N. Y.

William H. Waite, whose contract terminates with Samuel Untermayer on January 1, has resigned his position as superintendent of the Untermeyer estate, "Greystone," Yonkers, N. Y., to take effect January 1. Thomas Hatton, who recently arrived in this country from England, succeeds him. At this writing Mr. Waite has not decided as to his future plans.

Otto Schubert, head gardener on the Sim Estate, Houston, Texas, has succeeded in growing some floral and nursery stock which it was heretofore believed impossible to produce in the semi-tropical climate of his territory. His 'mums and American Beauties this year, it is said, would have been hard to surpass even in exhibition classes.

#### THE GARDENER OF THE PAST AND FUTURE.

BY RICHARD VINCENT, IR.

The gardener of long ago and the gardener of today are really two distinct beings in many ways. The old-timer had many things to contend with that the present-day gardener or florist knows nothing of, unless, like myself, he lived in those so-called good old days. We well remember the duties that were expected of the foreman or manager, let alone the apprentice boy. We used to work from daylight to dark in the long wintertime, then go to supper and return, make labels, stoke the fires and do other odd jobs for an hour or two. But with all this, our great success and achievements in this country were brought about by men trained in this hard school of learning, men who have made a name for themselves, both as florists and gardeners, that has gone the world over.

The work and accomplishments of the so-called college graduate, the kid-gloved farmers or gardeners that many of them are—not that a college education is not a good thing to have—nine times out of ten cannot compete with the hard practical knowledge that is gained by contact with mother earth. Though she stains the hands and clothes with her brown soil, it is good to come in contact with her for it leads the bright mind into investigation and research, clearing it of ignorance of many things that the man that gets only book or superficial knowledge has no idea of.

Let us not, however, cry down any of our young men that are honestly trying by all means at their command to make good gardeners, but let us teach them to drive the spade into the soil of thought, that light may come, and not ignorance, of the workings of nature and nature's ways, so that they may become even better and brighter gardeners than the race of gardeners that have preceded them.

One of the causes of frequent complaints is the inefficiency of those claiming to be gardeners and landscape architects, who really lack the first fundamental principles of the occupation they aspire to and are

only a disgrace to our noble profession.

Too many places have been spoiled by just such men and you can see such places everyday in traveling about, that, were they planted by a thorough gardener, they would be places of beauty and a joy to the owner thereof; but, instead of that, they are a worry and make his heart sore. No wonder with cases of this kind, that many hesitate before putting their money into it. Then again, we have men on many estates, as head gardener or superintendent, whose hands are often tied by the help he has, being too indifferent to give value received; all some being fit for is to hold up a hoe or spade a few short hours in a day, more auxious about the week's pay than any part of the performance that they have to do for it. Of course, there are exceptions; the employers may expect too much, but we find more often that there is not sufficient given, to justify the cost to the owner. Where the manager aspires to make himself useful to his employer, his true worth is recognized sooner or later. Therefore, let us teach our young men coming up to strive to elevate themselves, and their profession, that they may have the respect of the world at large. May we do our part to make it brighter and better to live in as our forefathers did for us, using all the scientific knowledge available, that the products of our gardens and greenhouses may be better and more be accomplished with less labor.

### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. S. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### ASSOCIATION NOTES.

Beginning with the January number, an illustrated article will be published each month, descriptive of the park systems of various Pacific Coast cities. These will continue until convention time, and are intended to inform the membership as to what is in store for them in connection with the trip to next year's convention as well as to stimulate interest in members making the entire coast circuit, via the Pacific Northwest, either going or returning, which can be done at but slight additional expense.

The proceedings of the Newburgh-New York convention, which the secretary expected to have printed and in the members' hands by this time, will not be out until January. Failure to receive photos of all members of the Executive Board is responsible for the immediate delay.

The membership roster in a new form which will probably be pleasing to the members, will be off the press this month.

The cities of San Diego, Cal., and Tacoma, Wash., have been added to the list of sustaining members recently, following solicitation by the secretary. An effort is being made to enroll all of the coast cities, and it is probable that several others will be added in the near future.

This will insure a hearty reception at the various cities for delegates attending next year's convention.

The annual report of Superintendent George A. Parker, of Hartford, recently distributed should be read by every park executive.

Mr. Parker is both original and unique in his methods and conclusions, and his observations are worthy of serious consideration. His chapter on "Milestones in Park Development" is especially good and will be published in full in these columns.

J. Henderson, superintendent of Mt. Royal Park at Montreal, writes to say that he is well pleased with the change of official organ, and likes this magazine very much. Many others have written in the same vein, which is, of course, pleasing to the officers, who had a duty thrust upon them by the convention acting according to their best judgment, and were temporarily criticised by some who did not fully understand the situation.

#### PARK DEPARTMENT PERSONALS

John W. Duncan, past president of the association, is still superintendent at Spokane, Wash., and has just closed a busy year of improvement work. An extension fund of a million dollars for park purposes became available two years ago, and while a considerable amount of it was spent for land, Mr. Duncan was able to add a gold course, athletic stadium, several playgroun's and new park buildings. Early in the spring Mr. Duncan will give us an illustrated article which will prove why members attending next year's convention should stop off in Spekane.

A. A. Fisk, superintendent at Racine, Wis., who created such a sensation at the Newburgh convention with his white suit, now springs another surprise with the announcement of the arrival of a little stranger in his household, Jessie Louise Fisk. The Fisk smile, well known to convention attendants, is probably just a little broader about this time.

Richard Iwerson, formerly superintendent at Calgary, Canada, has secured a position in charge of landscape work for the Washmgton Nursery Company at Toppenish, Wash,

Emil T. Mische, for many years' superintendent at Portland Ore., has a new position and a new title as the result of changes following the adoption of a commission form of government. A commissioner of public affairs is now at the head of the park department, and Mr. Mische is to serve in the future as consulting landscape architect for the department, engaging in private work as well.

Bernard Rifkin, the lost member, supposedly superintendent at Reading, Pa., has been located at Pottsville, Pa., the information being supplied by Chas. A. Seybold, of Wilkes-Barre.

Mr. Seybold, formerly in charge of Carroll Park at Baltimore, is now supervisor of the Bureau of Public Parks at Wilkes-Barre.

J. W. Thompson, superintendent at Seattle for ten years, and who has been passing up the last few conventions because he has been so busy spending four million dollars of extension funds, will have an illustrated article on what he has accomplished, in a future number of this magazine.

Mr. Thompson is one of the charter members of the association and is looking forward to next year's convention on the Coast, and hopes that all of the old-timers and new ones also,

will come by way of Seattle.

C. K. Brock, superintendent at Houston, Tex., reports activity in park lines in his city, \$250,000 in bonds having recently been voted for park improvements. One of the new features to be added was a Zoo in Woodland Park. One of Houston's citizens, a Mr. George H. Herman, recently died and bequeathed to the city for park purposes a prominent city block, on condition that no destitute person found in the park should be arrested or molested. Mr. Brock is one of the few members we have in Southern cities, a very promising field, which the association has overlooked in years past.

G. Hennenhofer, superintendent of Pueblo, Colo., is very anxious that members attending next year's convention should plan their route via the Colorado cities and stop off at Pueblo.

When the association met in Denver in 1913 many promised to stop over in Pueblo, and Mr. Hennenhofer rushed home to be on hand to entertain them, but not a soul showed up, although many passed through Pueblo on the return trip. It is to be loped that next year some of the members will put Pueblo on their list of stop-overs.

#### MILE STONES IN PARK DEVELOPMENT.

By George A. Parker.\*

The mile stones in the development of "Municipal Parks" seems to have been as follows:

1. 1850 when the thought was a single large park that would bring country influences and rural scenes into the midst of city conditions.

2. 1875 when a series of separate parks was conceived.

3. 1890 when large park reservations with connecting parkways or boulevards took form.

4. 1900 when playgrounds and outdoor gymnasiums

became popular.

5. 1910 when park work included public recreation, so that now the word "parks" is fast becoming to mean all those things needed for the people and for each group of people for their recreation in outdoor life, that is so essential to health and happiness.

With each mile stone passed, the meaning of the different words and terms used has increased, and the motif that has led the workers forward has changed so that now it seems necessary to re-state the motif

and re-define some of the terms.

The parks of a city, the influences they exert and the services they render are fast coming to mean all plant and tree life, lawns and decorative grounds, whether public or private, that are within a city. This conception justifies the Park Department furnishing at slightly above cost loam, sod, or other materials for the improvements of private grounds, for such improvements add just so much beauty of the city, mak-

 $<sup>^{\</sup>star}\mathrm{Extract}$  from his annual report as Superintendent of Parks, Hartford, Conn.

ing it more desirable to live in, which is the fundamental motif under all park work. Furthermore, this conception of park service makes every man's home become part of the park system, and connects his front yard with the public parks by means of the street tree planting and park strips, thereby providing a channel of influence between the park department and the private home, similar to that which exists between the street, water and sewer departments.

History demonstrates, and observation confirms the fact that the influence of plant life and rural scenes are essential to strong enduring, well regulated and well balanced home life. Those cities that have ample park and recreation systems well distributed, developed and maintained, have raised the standard of the character

of its citizens.

Gradually and almost unconsciously recreation work has come to be a part of park work. It came first, because parks were open grounds, and recreation needed open grounds; but as the work has gone on, the realization has come that park and recreation requirements are so closely related and united, that neither can be successfully maintained without the other.

What then is now meant by recreation? Much has been written about "Municipal Recreation," especially during the last ten years. At first it meant play for children, but its meaning has expanded until now it includes whatever is done during the leisure hours of the people as individuals, or as groups, or as a whole.

It has three divisions:

1. Private recreation which takes place at home or socially with friends and neighbors, and in which the public has no part.

2. Public recreation privately owned and exploited

for private gain.

3. Public recreation publicly owned, which is either free or furnished at cost or nearly so.

Recreation is helpful in four ways:

First. It provides the means for growth in children, and gives an even development of mind and body. A boy is the man in the making. To form him, parents and teachers try to mold his habits and character. Work and study are but outside influences and forces to lead or compel him to fit into the mold which has been pre-determined. In doing so there are used only

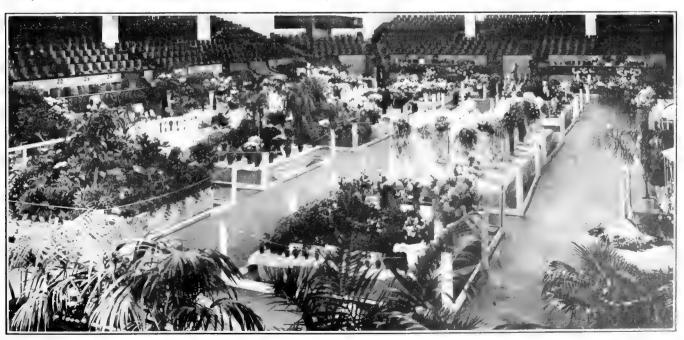
a comparatively small proportion of the number of muscles and faculties that go to make up the boy. Recreation allows for free use of all those muscles that are not sufficiently used in work and study. It responds to nature's call to move or to atrophy. It is a force within, working out. Work and study are forces without working in. Both are needed to make the man

Second. Recreation provided refreshment and restoration to the tired or over-strained body and mind. Nature will replace used or abused muscles and tissues, if suitable rest is given them, and used or partially used muscles and tissues have exercise. Recreation provides just this. It may consist of just comfortably resting in the fresh air, or leisurely walking about, or something that makes one forget himself. It may be music or entertainment, or exercise, but whatever it is, it must be of one's own free will and accord.

Third. Recreation prevents evils and weaknesses of a city, providing it is sufficient to provide wholesome and ample opportunity to do so. The great majority of people prefer good to evil, if an overwrought body or mind and environments do not lead him otherwise. If the recreation provisions of a city are as sufficiently provided for as is the fire department for fighting fires, they will prevent or destroy evil weaknesses as effectively as the fire department does fire. But too often the recreation provision is no better prepared to do its work than the fire department would be if it had only

a hand pump and a bucket brigade.

Fourth. Recreation is the balance wheel for work and play. Any machine which is subjected to irregular work, needs a regulator or balance wheel or both. Machines that do not have them must find a balance between their endurance and the power which drives them, otherwise they are destroyed by the force which was given them to use. The mission of a balance wheel is to store up force when not needed, to give it back when it is. Work and study are the constructive forces of a city. They are irregular in their effect upon the human body and mind, and differ widely as to their requirements and application. Recreation stores up human energy when in abundance, and gives it out when the strain comes.



TEXAS STATE FLOWER SHOW, HELD IN HOUSTON, TEXAS, DURING JUBILET WIFE (81) PAGE of

## City Forestry in Chicago

By J. H. Prost, Supt. of Parks and City Forester.

Before the fire of 1871, the residence streets of Chicago were so well planted with trees as to suggest the civic motto, "Urbs in Horto"—A City Set in a Garden.

The fire destroyed a large majority of these magnificent trees, which were never properly replaced. Chicago, in its rapid commercial and industrial development, sought to supply its aesthetic needs and uphold this civic motto by establishing elaborate playgrounds, beautiful parks and extensive boulevard systems; and while these are necessary and beautiful features of which we may well feel proud, yet in accomplishing all this we have thoughtlessly neglected what may be considered the back yard or living portion of the city, overlooking those features of the "City Beautiful" which become a joy and comfort to the masses.

Trees planted in front of every home in the city cost but a mere trifle, and the benefits derived therefrom are inestimable, when compared to the cost and benefits of the parks, playgrounds and boulevards, and every city, as many have, could well afford to make this its first endeavor toward a "City Beautiful."

By making trees a part of the daily life of our citizens, we are not only beautifying the city, bettering its health conditions, increasing the value of real estate; but we are also educating our people to better appreciate, respect and enjoy our parks.

The home and school are the greatest educational factors of a community, and whatever is for the permanent good of the city should begin at home and in

the school.

In Chicago we have some fifty or more civic improvement organizations, covering all parts of the city, and these are again affiliated, forming a league of improvement associations.

These associations have long realized that the street tree is an indispensable factor in making the city more habitable and essential to an ideal residence street.

In 1904 a Chicago "Tree Planting Society" was organized to promote the planting and care of street trees. It published and distributed a circular setting

forth the reasons why trees should be planted. But definite results were not obtained until January, 1909, when the Chicago Woman's Club put forth determined efforts to establish an office for the municipal control of street trees; by calling a meeting at which there was appointed the Chicago Tree Committee, made up of thirty citizens representing many prominent clubs and societies, with Franklin Mac-Veagh, former Secretary of the Treasury, as chairman. This body proposed to ex-Mayor Bussee, the adoption of an ordinance concerning trees and shrubbery in the streets of the city. The proposition was approved by the Mayor and on his recommendation the City Council, March 21, unanimously adopted an ordinance as drafted by the Tree Committee.

It was agreed by the Mayor and citizens interested that the work ought to be placed in charge of the Special Park Commission, as its work for small parks and playgrounds already extended over the entire city, besides possessing the necessary facilities and ex-

perience in the subject.

The ordinance accordingly gives control of the trees in the streets to the Special Park Commission, authorizes it to appoint a City Forester, who is to direct, assist and advise persons wishing to plant trees, and to have general charge of the care of the trees in the streets.

The ordinance further provides that the City Forester shall superintend, regulate and encourage the preservation, culture and planting of shade and ornamental trees and shrubbery in the parkways of the city of Chicago.

It shall be the duty of owners of lots within whose lot lines trees are growing to keep them trimmed, so that they shall not interfere with the passage of light from the street lamps, and that dead or living limbs shall not overhaul the street or sidewalk so as to interfere with the proper use of the same.

Before planting trees in the parkways of the city's streets a written permit must be obtained from the City Forester, this being for the purpose of controlling the variety, size and character of tree planted. Trees must not be planted nearer together than twenty-five feet in any case.

Gas companies, upon notice, must repair any leak in their gas pipes that may endanger the trees in the

parkways.

No stone, cement or other material shall be permitted in the parkways which may endanger the life of trees in such parkways. An open space not less than two feet in width must be left around any tree planted in the sidewalk space.

Persons carrying on building operations must protect exposed trees in the streets with guards so that

they shall not be injured.

Violations of the ordinance are punishable by a fine of not less than \$5, nor more than \$100, for each offense.

Upon assuming the duties of the office in May, 1909, it was found that the Special Park Commission, by the passing of this ordinance, had added to its supervision about 1,486 miles of parkway lying along improved streets, and 1,370 miles of parkway lying along unimproved streets and 1,415 miles of alley.

Eighty thousand (80,000) would be a fair guess as to the number of trees growing in the parkways of

Chicago.

The department was immediately called upon to give advice to citizens planning the planting of trees and shrubbery in the parkways, to consult with neighborhood and street improvement associations who desired advice on planting, and these clubs also arranged for meetings of property owners, where an outline of the purpose and activities of the office were given in addition to information on street tree planting. Our efforts were next directed toward informing citizens, police department and public utility corporations of the passage, purpose and contents of the ordinance, and to arouse an appreciation of the services this new department could render our citizens.

Realizing the vast importance of this work, the extent of territory covered, and the unlimited possibilities. I was determined to fortify the office with as much available information on city tree work as could be gathered. To this end the foresters of a number of cities courteously gave me invaluable information

and suggestions.

Washington, of course, affords the best opportunities for the study of city street tree work, and the secret of their success lies in the fact that they have had the money, the nursery and the man.

Lack of municipal control and planting regulations has imposed upon Chicago an unnecessarily large number of soft wood trees. Then, too, we find elms, ash, catalpas, Carolina poplars and cottonwood trees are mixed along the same street and varying greatly in size in the same block, and this treatment is not uncommon even in the most choice residence districts.

Stumps and dead trees have stood in the parkways for years, becoming an eyesore and menace to the public. Many of these trees were killed by gas leaks, while others have been outrageously mutilated by careless and indifferent citizens and the various public

utility corporations.

Those dead, dying and unsightly trees have in many cases discouraged and prejudiced our citizens against the planting of new trees, and they have become indifferent and unappreciative of the beauty and com-

fort to be enjoyed in well-planted streets.

A series of instructional pamphlets were printed for free distribution; the first outlining the inception of the movement and the ordinance; the second, "The Call for Trees," attempts to tell how trees make a city more beautiful, healthier, wealthier and stimulate civic pride; the third is intended to impress our citizens with the existing barrenness of certain streets, the causes which have combined to bring about these conditions; suggesting preventive remedies and directions for the proper removal of dead trees and the trimming of unsightly ones; the fourth gives some idea of "What, Where, When and How to Plant"; the fifth helps for the City Beautiful—tells how to make "Gardens in windows, on porches and in front and back yards."

These pamphlets hurriedly compiled have necessarily been brief. The demand for them has been so great, however, that a second and in two cases a third

addition has been printed.

Our newspapers have given this movement their hearty support. Our police department has acted promptly in reporting and prohibiting violations of the ordinances and the telephone and electric light companies have co-operated by printing their own permit forms as recommended by the department.

Many of our improvement associations and women's clubs have arranged for lectures on City Tree Planting. These talks usually are given in the evening, are instructional rather than amusing. During the year 1910 about 75 of these illustrated lectures were delivered before improvement associations, women's

clubs and the public schools.

Last year 385,000 catalpa speciosa seedlings were planted by the children of Chicago. These were supplied to them at a cost of one cent. And after making many inquiries I feel safe in stating that this planting was so carefully done and the seedlings were so well taken care of that at least 80 per cent. of them survived. Facts have come to my attention showing that the little trees suffered from altogether too much care. In one case a little boy five years old was so intensely interested that he pulled his little tree up by the roots each day to see how much it had grown. In another case a little girl picked off the leaves from her own little trees and pressed them in a book. This affection was disastrous to the little tree, of course.

This year 300,000 Russian mulberry seedlings were planted, and I am sure each child took a great interest in its own little tree which it planted or helped to plant, and they will afford them great pleasure to see the tiny tree grow, feel proud of their share in the celebration of Arbor Day. But the child's interest does not stop here, for long after its happy childhood days are over it will eagerly watch the returning buds

each spring, and during the summer while watching other children plan beneath its spreading branches the full meaning of tree planting is realized.

This tells the story of why I have encouraged the wholesale planting of penny trees by the children on

Arbor Day.

The appreciation of things useful and things beautiful should begin at home and become a part of our everyday life. Thus, with our residence streets well planted with the proper varieties of trees, the young can grow up knowing, respecting and appreciating the tree for its usefulness, learn to admire its beauty of form and color, and in this way we may instill a patriotism that will mean a love for the home and a love for the city.

## JOHN McLAREN ACHIEVES ANOTHER SUCCESS.

John McLaren, world-famous landscape gardener, who transformed the Golden Gate Park at San Francisco from a barren waste of sand dunes into one of the greatest parks in the world, is converting the grounds of the Panama-Pacific International Exposition into a Garden of Eden. Hundreds of thousands of rare trees and millions of blossoming shrubs and flowers are already growing upon the exposition site, and it appears as though the ground had been cultured



JOHN McLAREN.

for years. There are giant tree ferns from Australia, rhododendrons from England, huge creole palms from Cuba in the collection. Mr. McLaren knows the life of the plant from seed to flower. Today the exposition grounds are like a city of shimmering green domes and red-tiled roofs, set in gardens such as are only possible to produce in California. For the great golden garden of the main entrance plaza over 700,000 golden flowering plants have been planted. In the Court of Palms more than 50,000 Spanish iris yellow wall-flowers are set out in addition to some 200,000 yellow pansies, 100,000 yellow daffodils and 100,000 yellow poppies. In the Court of Flowers, we are told, 50,000 golden tulips, 150,000 golden poppies and 50,000 daffodils will meet the visitor's gaze. It is estimated that a thousand staghorn ferns, 400 species of orchids from the Philippines, 200,000 trees and flowering shrubs and nearly 2,000,000 bulbs, with thousands of palms, are used to make the setting for the palaces.

#### HERE, THERE AND EVERYWHERE

#### "WINTER INJURY" OF TREES.

It is a matter of common observation that many of our forest and cultivated trees suffer at times from the effects of severe cold, of sudden and extreme temperature changes in winter. Properly the term "Winter Injury" must include injury to all parts of the tree, such as winter killing of the tips of branches, root injury and injuries to the trunk; but in this paper only the latter will be considered.

Of injuries to the trunk there may be said to be three types -

frost clefts, sun scald and crown rot.

Frost clefts or cracks are, as their name indicates, longitudinal cracks in the trunk formed under the influence of extreme cold. They are usually, though not always, evident externally, pro-

ducing a corresponding crack in the bark.

Such cracks are believed to be due to a greater contraction of the tree trunk in a tangential direction than in a radial direction. Professor Müller Thuegan offers an explanation of this unequal contraction in the anatomical structure of the trunk. A cross section of any woody stem shows radiating lines of fibro-vascular bundles, composed of comparatively firm cells, separated from each other by strips of softer tissue, the medullary rays. Contraction of a tree trunk under the influence of cold is due to a loss of water consequent to freezing; the medullary tissue loses water more readily, and thus contracts more rapidly than the tissue of the cascular bundles, then, would naturally resist a tendency to radial contraction; tangential contraction, on the other hand, could readily take place, due to the interspersion between the bundles of the easily contracting medullary rays. When the tension differences thus set up become great enough in other words, when the cold reaches a sufficiently great degree, a frost crack is formed.

These cracks close on thawing and usually heal rapidly, but until entirely healed will reopen with a less degree of cold than that which caused the original injury. Thus, if proper weather conditions prevail the same crack may be reopened during several successive seasons. Since every time the crack reopens the healedover surface is ruptured, and in the new tissue formed at the subsequent healing, is laid down over this, the result of projecting frest ridge of, as the Germans express it ("frost leister"). Two such frost ridges on an oak trunk are shown in the accompanying

photograph.

The occurrence of a few mild winters in succession is necessary to the permanent healing of a frost crack. It is, of course, unnecessary to state that even after healing at the surface the

crack still persists in the interior of the tree.

Often after a severe winter injured areas in the bark may be observed. In such places the bark appears discolored, dead and loosened from the tree, often split open, exposing the wood beneath. On examination it is found that (cotex cambium) and sometimes a portion of the sap wood has been killed. Such injury is almost invariably confined to the southwest of the tree. Since this is the sunny side, the injury is popularly called "sun scald," and has been ascribed to the action of the sun in warming up the tissue from a condition of severe cold. In the present state of knowledge on this subject it is unsafe to make any assertion as to the exact manner in which this injury takes place. but it is undoubtedly due in some way to the interaction of cold with heat from the sun's rays. Rapid thawing cannot be the cause, since, contrary to the popular belief, the rate of thawing of frozen tissue has no effect on the nature or degree of injury from freezing. That the injury is dependent upon a peculiar set of climatic factors is evident from the fact that it is unusually severe and widespread in certain seasons, and entirely absent in others.

Sun Scald is a serious trouble with fruit growers, fruit trees being particularly susceptible. The initial injury is often followed by canker and wood-destroying fungi, making the matter

doubly serious.

Sun Scald occurs chiefly on the trunk or at the crotch of main branches. A similar injury is often observed at the base, or crown, of the tree. This also differs from the above type of injury in not being confined to the southwest side. It seems that the tissue at the crown of a tree is particularly tender and susceptible to injury from freezing. Since this type of injury is usually followed by wood-destroying fungi, it has been popularly designated as Crown Rot, Collar Rot or Collar Blight, the initial cause of the injury being lost sight of in the consideration of the evil that follows. This type of injury is in reality little different from the former type and the same relative susceptibility of varieties may be noted. Certain varieties of apple trees, especially the King, seem to be subject to Crown Rot, even under the most favorable conditions.

Obviously, the condition of the tree will influence its susceptibility to winter injury.

Trees which have made a late growth and have entered the winter in an unripened state are particularly liable to injury. Weather favoring late growth in the fall is thus as much of a factor as severe or changeable weather in winter.

Unfortunately, in this case we are dealing with factors beyond our control, and preventive or remedial measures are necessarily

unsatisfactory.—Tree Talk.

#### WITHDRAW PROTECTION FROM EUROPEAN STARLING.

In its annual report for the last fiscal year, the Bureau of Biological Survey of the U. S. Department of Agriculture reports

as follows on the European starling:

Introduced into the United States nearly twenty-five years ago, the European starling has gradually extended its range from New York City, and now it is found in the neighboring States of Connecticut, New Jersey, New York, Pennsylvania and Massachusetts. During its migrations in search of food it ranges much farther from the original center and occurs in considerable numbers as far south even as the District of Columbia.

The starling is markedly insectivorous, especially in summer, and preys upon many noxious varieties. In this respect it is to be classed among our useful birds. So far as is known, it has not proved destructive to grain crops, but it is known to be very fond of small fruits, and as it associates in large flocks, it is likely to become a pest to the orchardist. In addition, it prefers tree cavities, boxes, or recesses in buildings for nesting sites, and thus is brought into direct competition with certain of the useful native birds, more particularly the bluebird, purple martin, white-bellied swallow, house wren and flicker.

The bird is steadily extending its territory, and it will be wise to withdraw all protection from it, as has already been done in Connecticut, New Jersey, New York and Pennsylvania, including the center of its abundance, with a view of checking its increase and spread. The shipment of these birds from one State to another has been prohibited under heavy penalty by act of Congress. Under ordinary circumstances, even after all protection is withdrawn, the bird will probably prove to be capable of taking care of itself. That ultimately it will spread over a large part of the

United States is highly probable.

#### A VISIT TO A SNAKE FARM.

One of the most interesting places in Brazil is the Instituto de Butantan, situated among the Mar Mountains, several miles from Sao Paulo, the second largest city of the republic. This institution, which costs the Brazilian government more than \$40,000 a year, studies the snakes of the country, extracts the poison from those that are venomous, and changes it into a serum that will cure those who are bitten by snakes.

There are only two such institutions in the world, the other being at Calcutta, India. The Brazilian farm is fourteen years Within the last year the government has built a fine new building that contains a very excellent medical and chemical

laboratory.

Outside the building, in a long, rectangular plot, surrounded by an iron fence and a cemented moat, are sixteen or twenty beehive-shaped structures of cement; cement paths connect them with one another and with the moat. Each of these has four small doors, with a hole in the centre. Every morning an attendant comes round with a long rod, which has a bent iron hook on the end, puts it in at the door holes, and removes the doors, Slowly the snakes come out to creep in the grass, bask in the sun or swim in the pool. In another park at the side of the building there are more such houses. In that park are trees, and it is a remarkable sight to watch those trees. At first you see nothing but the trees; but the longer you watch them, the more wriggly they become, for they are alive with snakes! The farm has about 1,500 snakes corralled for research purposes,—Exchange.

#### FERTILIZER RESOURCES OF THE UNITED STATES.

In discussing the fertilizer resources of the United States, the Bureau of Soils, U. S. Department of Agriculture, in its annual report for the fiscal year ending June 30, 1914, says in part:

While the extraction of potash from such natural silicates as the feldspars is quite feasible physically, it is not practicableeconomically, unless some other salable product is produced in the same operation. An investigation into the use of feldspar in the fixation of atmospheric nitrogen showed promise of a practical method of producing ammonia simultaneously with potash from The most premising American source of potash. ever, is the annual crop of giant kelps on the Pacific coast. Working maps have now been made of nearly all the commercially available kelp beds from the Cedros Islands to the Shumagins, off the Alaskan coast. The area of these beds aggregates nearly

400 square miles, capable of yielding annually, either as dried kelp or as pure potassium chloride, over six times the present consumption of soluble potash salts in the United States, or something more than the world's present total production. The development of a great American industry, based on the conservation and utilization of this important national resource, of fundamental importance to the national agricultural interests, seems now to be a matter of time only.

If all the coal that is now coked in the United States were treated in modern by-product ovens and the ammonia thereby saved, the nitrogen tonnage would be about that now consumed in the fertilizer trade of the country. While the transition from the old "beehive" to the modern furnace method is steadily progressing, the greater dependence for nitrogen carriers yet remains in cottonseed meal, slaughterhouse by-products, fish scrap and some other less important materials. The growing and insistent demand for more nitrogenous feeds to support the meat production demanded by the dietary customs of the American people is gradually but steadily withdrawing these "organic" carriers from the command of the fertilizer manufacturers, while the demand for nitrogen carriers is steadily increasing. necessity for artificial methods of fixation of atmospheric nitrogen in the United States is not immediately present, but is approaching rapidly. It would be premature to announce the results of the department's investigations as yet, but the types of material which are of commercial promise for American conditions have been pretty well worked out and substantial progress has been made in the investigation of the fundamental technical factors which must control the production of these particular types. At the same time investigation is being made of other possible sources of nitrogen.

Although improvements are being made, the wastage of phosphate rock at the mines is still disconcertingly large. In Florida, where the most actively-worked fields are situated, investigations of the Bureau of Soils have shown that practically 2 pounds of phosphorus goes to waste for every pound produced in merchantable rock. Studies are now being made looking to the recovery or prevention of some of this wastage by mechanical methods, while several chemical methods have been carefully investigated.

#### STUDY OF PLANT ODORS.

A rose by any other name would smell as sweet and onions and garlies would be the malodorous delusiens and snares that they are even were they called violets and narcissus. What, then, is it which causes the odors of flowers and the noxious nasal annoyances of molds and other lowly plants? M. Eugene Charabot, the able chemist, now rushes into the breach in an attempt to explain all this.

What is a plant odor? Where does it come from? How is it distributed? Why are some of them fragrant and others malodorous? After a ten-year research independently and along with Al. Hebert, M. Charabot now attempts to answer some of these

There are two great groups of odoriferous vegetation. In the one division the fragrance emanates and is found in the flower of the plants; in the other the odors spring from the green parts or bulbs. The perfume of the flowers usually surpasses that found in the rest of the plant. The rankest compound of villainous smell that ever offended a nostril is found in the latter, whereas the balmiest, most ambrosial bouquet of redolent scents is to be obtained from flowers.

The odors usually, he says, make their earliest appearance in the young, green shoots. Thence they continue to accumulate until the plant flowers. Then the odorous compound migrates from the leaf into the stem, and thence into the inflorescence and obeys the well-known laws of diffusion.

When fertilization of the plant takes place some of these oils are used up by the flowers, while at the same time the green parts are called on to make more of these fragment oils.

The practical outcome of this is that to harvest the perfume oils yielded by the plant it should be most profitably carried out just before fertilization occurs. For after this the odorous principles appear to descend again into the stem and generally into the or gans other than the flower. This migration is probably the withering and drying up of the inflorescences.

If the two learned gentlemen wish to know of the "rankest compound of villainous smell that ever offended a nostril" we direct their attention to the flowers of the black Calla, or its near relative. Amorphorhallus Rivieri. If a whiff of these two malodorous flowers are not sufficient to convince them that "the balmiest, most ambrosial bouquet of redolent scents" are not found in some flowers we commend to their investigation those of the Staphelia and of the tropical pipe vines. Again some of the Clerodendrons bear flowers of the most delightful fragrance, while the foliage has a fetial cdor Paritie Garden

#### A ONE-TREE FARM.

On the borderland of Bolivia is a farm, and a rarely prosperous one at that, which consists of a single tree. It is a rubber tree and it supports a family of seven persons in comparative affluence. This lone tree has been nursed along for generations, until it now measures about 27 feet in circumference at the base. The daily yield of caoutchouc is more than twenty-two pounds during the 120 days of the year that the tree can be successfully tapped, or almost a ton and a half of this precious product annually. On the basis of this yield the tree has an estimated value of \$60,000. Few growing things are so tenderly guarded.

There is an alligator pear tree in California that is estimated to be worth about \$20,000 a tree that is said to employ a press agent and to carry a life insurance policy. It has been widely heralded as the tree of trees, and cuttings from it are sold for almost their weight in gold. But it must now play second fiddle to this Bolivian marvel, and before long we may hear of some new wonder of Nature that will outrival the South American superlative of all single-plant growths.

As a sublimely simple farming operation, however, we must all bew for a while to this one tree ranch of the inland republic, Lachange.

#### QUERIES and ANSWERS

We believe the greatest good can be accomplished for the greatest under by instituting a outry column; or an exchange of expe-

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.

Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

Nothing will tend to better fellowship than helping each other.

Mothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

"I would like to get some information on the cultivating of the blueberry, which I understand is finely grown on some of the estates in Massachusetts. They grow to perfection in our section in the wild state, but we do not seem to succeed in cultivating them successfully. Any information you can give me regarding their culture will be appreciated."--U. M., Nova Scotia.

#### DIRECTIONS FOR CULTIVATING BLUEBERRIES.

Blueberries are easily cultivated after the soil is once prepared. After ten years' experimenting with the swamp blueberry (Vaccinium ('orymbosum) we have found that a swampy place is not absolutely necessary, as is commonly supposed, in order to successfully grow these berries; but an ordinary upland place will do as well. We have found the best method is to remove the top soil 1 or  $1\frac{1}{2}$  feet deep and fill in with 2/3 peat and 1/3 sharp sand well mixed. (If bog peat is used, allow it to be exposed to sun for one season before using.) Plant the bushes when in a dormant state, pressing the soil firmly about the roots. If wild bushes are used, be careful to obtain as many roots as possible, and prune a greater part of the tops off, as blueberries make new roots until after they are leaved out. Under this treatment our bushes have improved steadily each year, some bushes yielding from four to seven quarts of large berries, many measuring 9/16 of an inch in diameter, and a few larger, of excellent flavor and exceptionally fine keeping qualities. Seedlings are easily grown in sifted soil of one-half peat and one-half sharp sand with good drainage, and kept moist in a partially shaded place. We sow our seed in August and keep inside over winter, planting out in early spring. Blueberries like an acid soil, moist, but well drained, and lime or other fertilizers should not be used, and no vegetable matter should be allowed to grow among them. We have a quantity of four-year-old seedlings grown from our best berries that will fruit next season. For permanent planting, the bushes should be set about 8 feet apart, as they will cover this space when matured. Blueberry bushes are long-lived and should be given plenty of room to develop.

The blueberry is a useful as well as ornamental shrub, and we expect to see them planted extensively on private and public grounds in the near future.

The ordinary field blueberries (Vaccinium Pennsylvanicum) do better in the sandy uplands with a coating of upland peat, where they are more subject to drouth. C. H. Chamberlain, Valuel,

#### OF INTEREST TO ALL

#### CHARLES H. TOTTY FULLY RECOVERED.

Charles H. Totty, of Madison, N. J., who was confined to the Overlook Hospital, Summit, N. J., for a month, undergoing an operation, returned to his home on Friday, the 11 inst. Mr. Totty's health is so improved that he is able again to attend to his businessin fact, he felt so well on leaving the hospital that he immediately proceeded to his greenhouses and enjoyed an inspection of the same before going to his home.

#### HARRY A. BUNYARD, PRESIDENT NEW YORK FLORISTS' CLUB.

At the annual meeting of the New York Florists' Club. Harry A. Bunyard was elected to the presidency of that organization, succeeding William H. Duckham. Responding to the call to the platform, Mr. Bunyard remarked that the election to the presidency of the New York Florists' Club was the happiest moment of his life, barring that of his marriage; that he never regretted being married and felt sure that he would never regret being elected to the presidency of the New York Florists' Club, and trusted that the members would never have cause to regret electing him to the office. J. Keney was elected vice-president; John Young, re-elected secretary; William C. Rickards, re-elected treasurer. W. R. Cobb, J. H. Feisser and Emil Schloss were elected trustees.

#### A MAMMOTH PLANT STORE.

The MacNiff Horticultural Company, New York, is completing what will probably be the largest store of its kind in this country. It has leased the property next door to its present location and is constructing a store room 25 x 100 with ceiling 30 feet in height. This will be connected with the main store and in it will be conducted the auction sales. The height of the room will permit the largest size palm and indoor plants being exhibited therein for exhibition purposes.

#### AMERICAN SWEET PEA SOCIETY.

A meeting of the executive board of the American Sweet Pea Society was held at the offices of Peter Henderson & Co., New York City, on Tuesday afternoon, November 24, with W. Atlee Burpee in the chair. The principal business was the arrangements for the shows to be held during the coming Summer. It has been arranged that two shows be held; one in San Francisco, the other in Newport, R. I. The dates for the San Francisco show have not yet been fixed. The Newport show, which is to be held under the auspices of the Newport Garden Association and the Newport Horticultural Society, in the Newport Casino, will open on July 8, and continue through July 9. A very liberal preliminary premium list has been prepared and issued by the Newport organizations. Since this time the Newport Garden Club has donated \$100 in prizes. Copies of this preliminary schedule may be obtained of the secretary, Harry A. Bunyard, 342 West Fourteenth street, New HARRY A. BUNYARD, Secretary. York City.

#### THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES NURSERIES.

There you will find all kinds and you can take your pick from the best that is grown. Maximum Quality at Minimum Prices. Write W. R. Clucas, Manager.

THE PALISADES NURSERIES, INC., SPARKILL, N. Y.

#### ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N. J. and the state of the composition of the control of

#### 🚉 A SOUTH HITTHE BURGER ( FARRAR STUDING BURGER BA 16 ) - AARD DE KLEONDER BURGER BUR WATER LILIES and SUB-AQUATIC PLANTS

Trees, bushes and perennial plants, everything for the Water Garden or artificial pond. If you are contemplating the construction of a pond write me and I will give you the benefit of my 25 years' experience. Send for my Catabo, containing the best collection of Water Lilies, Hardy and Tender; Hardy Old-fashioned Garden Flowers, Hybrid Tea Roses, Evergreen Japan Azalens, Rhododendrons and many choice Novelties. Send for Book, "Making a Water Garden." 55 cents piepaid, WM, TRICKER, Water Lily Specialist, Arlington, N. J.

#### CELIDI CARACIII DESEO RESEA CON ESCUENCIA E PROGRESIA E PROGRESIA E CARACINATION DE CARACINATI B. HAMMOND TRACY

Gladiolus Specialist

WENHAM, MASSACHUSETTS 

#### VAUGHAN'S SEED STORE

Complete Spring Catalogue for 1915 ready Jan. 15. Ask for it at Chicago or New York

43 Barclay St. New York

31-33 W. Randolph St. Chicago האונות המודר לי בינות לי היו לי הי

#### AND THE REPORT OF THE STREET STREET, LIGHT OF THE PROPERTY OF THE STREET OF THE STREET AND THE STREET OF THE STREE HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

#### D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

элининин инжинин инжинин инжинин инжин инжинин инжинин инжи

#### AND THE PARTY OF THE SECOND PROPERTY OF THE PARTY OF THE ORNAMENTAL IRON WORK

For Lawns and Gardens.

Chas. C. Force & Son, LET US ESTIMATE ON YOUR WANTS. Madison Iron Works, Madison, N. J.

Zausanamananananan da santan da santan na na a 🕕 ina a, mandan ka a . . . . . a a a angan sebuah dengan na na a

#### Literatura de la compositio de la compos HARRY BALDWIN

Manufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS

MAMARONECK, N. Y. 

#### CHRYSANTHEMUMS

Novelties for 1915.

Mrs. Wm. H. Walker, Bob Pulling, Mrs. R. C. Pulling, Joan Stratton, Lelia Mary Bennett. Emma Roope, Mrs. Edgar J. Slater, Mrs. J. Surrey, also the finest of last year's novelties and standard varieties at popular prices.

#### CARNATIONS

Alice, Good Cheer, Pink Sensation, Matchless, Champion, Mrs. Cheney, British Trumpet, Princess Dagmar, Gorgeous, Enchantress Supreme, Beacon and White Wonder.

We have a large stock of chrysanthenums and carnations this year, and can guarantee deliveries out of  $2\frac{1}{4}$ -inch pots in January.

#### ROSES

Don't miss Francis Scott Key and Ophelia. They are the best things in sight.

If you do not receive our 1915 price list, write us.

#### **ELMSFORD NURSERIES**

SCOTT BROS.

ELMSFORD, N. Y.

#### GARDENERS DIARY

American Carnation Society. Annual show, Buffalo, N. Y., January 15.

International Flower Show. New York. March 17-23, 1915.

#### LAKE GENEVA (WIS.) EXHIBITION.

The tenth annual chrysanthemum exhibition of the Lake Geneva Gardeners' and Foremen's Association was held in Horticultural Hall, November 6-7, 1914. weather was ideal and the public attended in greater numbers than ever before. The principal feature of the exhibition was the groups, twelve in number being staged, the greater number being placed round the outside of the room, with a group of foliage plants in the center, and flanked by the specimen plants and large cut blooms. effect was conceded to be the prettiest ever seen in the hall. Strong competition was seen in the class for group of chrysanthemums with ferns and palms, four competitors coming out for the Livingstone prizes. The judges awarded first prize to Mrs. F. T. A. Junkin. While the number of cut blooms was not as numerous as in past years, owing to the advanced season, some exceptionally fine flowers were shown. J. J. Mitchell's vase of 12 William Turner, 12 F. T. Quittenton, Bronze Brighthurst and Colonel Appleton, and Mrs. A. C. Allerton's display of varieties William Turner, Elber-Lloyd Wigg, M. Louis Rossian, F. S. Vallis and Drabble being excellent. The association's cup was taken by a fine specimen plant of William Turner, shown by Mrs. Allerton. Some excellent ferns and foliage plants were shown by N. W. Harris and J. H. Moore. Groups of anemones, pompons and singles were exhibited by C. L. Hutchinson, a great many being his own seedlings, conspicuous among them being the beautiful white Anemone "C. L. Hutchinson," which will probably be placed on the market next spring. Other exhibits worthy of note were carnations from Mrs. F. T. A. Junkin, orchids from J. J. Mitchell, vegetables from N. W. Harris, and onions from J. H. Moore, Perpetual flowering nymphaeas from Wm. Tricker, Arlington, and chrysanthemums from Chas. H. Totty Madison, N. J. The judges were Wm. Currie, of Milwaukee, Wis., and F. Kuehne, of Lake Forest

In the competition for cut blooms and pot plants awards were made in fifty classes A summary of the division and prize winners follows:

Chrysanthemum cut blooms-Mrs. A. C. Allerton (G. Blackwood, gard.), five first and one second prizes; J. J. Mitchell (A. J. Smith, gard.), five first and two second prizes; Mrs. F. T. A. Junkin (Axel Johnson, gard.), one first and three second prizes; Mrs. H. H. Porter (W. Wahlstedt, gard.), one first and one third prize; J. H. Moore (A. Martini, gard.), one third prize.

Chrysanthemum pot plants C. L. Hutchinson (W. P. Longland, gard.), three first prizes; J. J. Mitchell, one first and one third prize; Mrs. A. C. Allerton, one second prize.

Group of chrysanthemums arranged for effect with palms and ferns (prizes donated by James Livingstone, Milwaukee, Wis.)—Mrs. Junkin, first; J. H. Moore, second; N. W. Harris, third.

Miscellaneous plants—N. W. Harris, eight first prizes; Mrs. H. H. Porter, one first prize; J. J. Mitchell, one first prize; J. H. Moore, one second prize.

Specimen chrysanthemums Mrs. A. Allerton, two first prizes and the association cup for best specimen chrysanthemum (Wm. Turner); J. J. Mitchell, two first and two second prizes; Mrs. F. T. A. Junkin, one first and one second prize; N. W. Harris, one first and one third prize.

Roses—A. B. Dick (F. G. Kueline, gard.), three first prizes; Mrs. F. T. A. Junkin, one first and three second prizes; J. J. Mitchell.

one first prize.

Lily of valey, 25 sprays Mrs. F. T. A. Junkin, first; N. W. Harris (J. Krupa, gard.), second.

Fifty violets-Mrs. F. T. A. Junkin, first. Best 10 flowering orchid plants, with ferns and foliage plants, W. A. Manda, South Orange, N. J., prize-J. J. Mitchell, first.

Carnations-Mrs. F. T. A. Junkin and J. J. Mitchell were first and second, respectively. in all classes. Mrs. Junkin also won the award in the class of 12 blooms, new varieties of 1914.

Special Mention-Mrs. F. T. A. Junkin. for vase of Carnation Benora.

Honorable Mention-Wm. Tricker, Arlington, N. J.; for perpetual flowering Nymphaea Mrs. Woodrow Wilson; Chas. H. Totty, Madison, N. J., for fine collection of pompoins and single chrysanthemums; J. H. Moore, for beans and lettuce.

In the display of vegetables, not to exceed 20 varieties, N. W. Harris was awarded the Coddington medal. Awards were also made in classes for celery, potatoes, apples and onions. W. H. GRIFFITHS, Sec'y.

#### HOUSTON (TEX.) FLOWER SHOW.

The first annual show of the Texas Florists' Association was held in Houston, Texas. November 12-13-14, in the City Auditorium. Being the largest show of its kind ever held in the State, it attracted much public attention and was pronounced a success in every

Exhibits came from other cities in Texas, from Chicago and other Western floral growing centres. Two long-distant exhibits which attracted much attention were those of Charles H. Totty, Madison, N. J., a fine exhibit of chrysanthemums, which made a fine the shipment of carnations from C. H. Frey. of Lincoln, Neb. Chrysanthemums, roses and carnations predominated, although there were many fine exhibits of decorative plants.

One of the features of the show which attracted much attention was a model of the new George Hermann Park, as it will appear when the landscape gardener has completed This exhibit was made by C. Brock, city superintendent of parks. Mr. Brock also exhibited a number of decorative and flowering plants.

#### MARYLAND WEEK IN BALTIMORE.

The seventeenth annual meeting of the Maryland State Horticultural and allied societies, held in the Fifth Armory, Baltimore, Md., November 16 to 21, proved a great suc-

The horticultural exhibits occupied the centre of the hall, being dissected from other sections by a 360-foot circular southern smilax hedge. A pergola entrance and three exits crowned with Cybodiums, Phoenix Roebellini, etc.

One of the chief attractions of the show and a decided novelty of much merit occupied the centre of the enclosure. This consisted of the Baltimore Florists' Club vase of red This consisted cedar bark, standing on a pedestal with 360 white and yellow specimen 'mums, and attained a height of 15 feet and a spread of 10 feet. The base of this wonderful vase was a 5-pointed star design filled with highly colored crotons and other exotics from the Baltimore Park Commission. The club mem-

C. | bers contributed the flowers, while the credit of designing, building and decorating the club vase belonged to William Feast.

A vase of twenty white 'mums exhibited by Charles Siquard with William Turner proved the best in the show. The same variety was also well shown by George Morrison, superintendent to Mrs. H. B. Jacobs.

Pompons were displayed to great advantage, and their unique colors and decorative abilities were well demonstrated by several exhibitors. Well-grown bush 'mums in 12-inch pots were shown by Mrs. W. Cochran (Mack Richmond, gardener). Fine displays of carnations and roses were seen at

Apples made a large exhibit and were of good quality. Other fruits, vegetables, forestry, dairy exhibits, etc., were well represented. HARRY TURNER.

#### PITTSBURGH FLORISTS' AND GARDEN-ERS' CLUB.

The meeting of this club at the Fort Pitt Hotel on the evening of December 1 was very enthusiastic and quite well attended. Jno. S. Gillespie, State Engineer, gave an informal talk on good roads. Early in his remarks he established himself in the good graces of his hearers with his Scotch stories which, being Scotch himself, were given with the added charm of the Scotch dialect. Mr. Gillespie thinks the last word on good roads has by no means been spoken. good road of yesterday is the poor road of today, and while the automobile has been the greatest factor in creating the desire for good roads, the heavy auto truck is the greatest factor in their destruction.

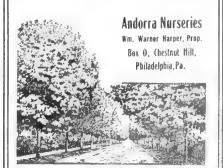
President McCallum gave an exhibition of a process he learned in Australia for the lengthening of the preservation of the flowers on a blooming plant. Taking a thrifty, blooming plant of Primula obconica, he washed the soil from its roots. Then placing some wet sphagnum in a shallow dish he spread out the roots of the plant thereon, and covered them thickly with wet moss, supporting the plant in an upright position as it had been in the pot. It is claimed that a plant treated this way will remain display, although four days on the road; and in bloom much longer than it would surrounded by soil in the pot. Mr. McCallum

## **Worth-While Trees and Shrubs**

#### GROWN AT ANDORRA

The Andorra Way gives specimen trees that are large countly to be effective from the first. Nearly all ornamentals can be planted successfully late in the scason, and the opening of spring will find your landscape rich with shades of

Visit Andorra now every day is dif-terent in its showing of beautiful foli-age. Come by motor, train or trolley. If you cannot come, write for our book-let, which will be sent free to those in terested in distinctive trees and plants.



took the plant away with him, and will! of the program was furnished by Arthur laing it before the club at the next meeting that all may see the success of the process. This scheme, while not new, is practically new to the florists in this vicinity so far as I know. There were some pleasing poinsettias, begonias and cypri pediums exhibited by the Bureaus of Parks. Northside and Schenley. A rising vote of thanks was given Mr. Gillespie for his

At the next meeting of the club in Jana ary the nomination of officers for 1915 will be taken up.

H. P. JOSLIN, Sceretary.

#### PATERSON (N. J.) HORTICULTURAL SOCIETY.

At the annual meeting of the Paterson (N. J.) Horticultural Society, held Tuesday evening. December 2, the following officers were elected for the ensuing year; President, Joseph Ackerman: vice-president, Dr. Thomas Moore; recording secretary, Sebastian Hubschmidt: financial secretary. Francis Bredder; treasurer, Hugh Clark. In the monthly competition the award went to F. Milne of Totowa, who showed a magnificent vase of carnations.

#### NEWPORT HORTICULTURAL SOCIETY.

This society held its annual meeting on December 8, and the following officers were elected for the ensuing year: President, William MacKay: first vice-president, John B. Urquhart; second vice-president, James Bond: treasurer, A. K. McMahon; recording and financial secretary, William Gray: sergeant-at-arms, James Watt. Executive Committee, with the above officers: Richard Gardner, Alexander MacLellan, Bruce Butterton, James J. Sullivan, Andrew L. Dorward, James Robertson, Fred Carter, Audrew S. Meikle and Alexander Fraser. Reports of the treasurer and secretary show the society to be in a very satisfactory condition.

The coming year promises to be the most eventful one in the history of this soulty. as it has already voted to join with the following-named organizations in holding exhibitions in Newport; American Sweet Pea Society and Newport Garden Association on July 8 and 9; Newport Garden Club in August: also monthly shows through the summer months with the Newport Garden Association. Lectures on gardening subjects are also provided for through the winter months.—Horticulture.

#### MENLO PARK (CAL.) HORTICULTURAL SOCIETY.

The second annual banquet of the Menlo Park Horticultural Society was held on Saturday evening, November 28. Over eighty people were at the tables, all members of the trade along the peninsula, and it was voted the most successful affair ever held by this hospitable society. James T. Lynch was the toastmaster of the evening Henry Maier, of Burlingame, Cal., gave the society a splendid talk, which was appreciated by all the members. President Henry Goertzhain responded, and was listened to very attentively, pointing out how the society could expand and pledged himself to see that it would do so. Wm. Kettlewill, of Burlingame, also praised the society's methods of holding flower shows. John M. Daly. vice-president of the society, made an eloquent plea for a larger membership, with the result that there will be quite an appreciable increase next meeting. George Nunn amused the members with reministations of the early days of the society, and organized in the office of the Friend Nurwas heartily applicated. The musical part series at Rye, N. Y. Starting with fourteen

Bearsley. Owen O'Donnell, Harry Homewood, Jack Atkin, Bernard O'Donnell, Frank R. Roach and Jack Patterson. After the musical program President Goertzhain presented the cups to the winners at the last flower show. The principal ones were David Bassett, Wm. Kettlewill, John M. Daly, John Carbone, Andrew McDenall, Jack Sinclair and C. Ulrich.—American Florist.

#### COMNECTICUT HORTICULTURAL SOCIETY.

This society held its annual meeting on Friday, December 11, in the county building. Hartford. Before proceeding to the election of officers, President Huss requested that a new president be elected in his stead, inasmuch as he felt that a change was desirable and that he had held the office for six years and should therefore be released. After the secretary and treasurer made their reports, we proceeded to elect officers for the ensuing year, which resulted as follows: President, Warren S. Mason, Farmington: first vice-president, George H. Hollister, Hartford: second vice-president, Carl Peterson, West Hartford; third vice-president, Oscar F. Gritzmacher, New Britain; secretary, Alfred Dixon, Wethersfield; secretary, Alfred Dixon, Wethersfield; treasurer, W. W. Hunt, Hartford; librarian, William T. Hall, Hartford; botanist, C. H. Sierman, Hartford; pomologist, G. H. Hollister; county vice-presidents; Middlesex, Alex, Cumming, Jr., Cromwell; Fairfield, Charles H. Plump, West Redding; New Haven, John H. Slocombe, New Haven; Windham, Frank M. Smith, Willimantic; Tolland, Theodore Standt, Rockville; Litchfield, Walter Augus, Chapinville. The president will announce the executive committee at the next meeting.

The treasurer and secretary were appointed a committee to solicit the members for contributions for the purpose of purchasing a suitable present for the retiring president

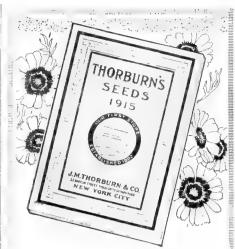
Mr. Mason is the grandson of C. S. Mason who held, in New Britain, in 1882, the first flower show ever given in the State of Connecticut. He was born in Meriden in 1879. For the past fourteen years he has had charge of the conservatories and grounds of the late A. A. Pope, of Farmington, which are conceded to be among the best in this section of New England.

The next meeting will be held January 8. 1915, when a program for the first half of the year will be presented.

ALFRED DIXON, Secretary. Wethersfield, Conn., December 11, 1914.

#### THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

The "boys" turned out in force to attend the monthly meeting of the society, held in Greenwich, Conn., Friday evening, December 11. President Robert Williamson presiding. President Williamson concluded his 24th consecutive monthly meeting in his term of two years. A rising vote of thanks was tendered to him for his unfailing courtesy and interest in the society's welfare This being the annual meeting, the officers for the ensuing year were elected. An enthusiastic aggregation of "live wires" were elected to office, assuring the society of a continuation of the phenomenal successes of the past. The December meeting also marks the fourth anniversary of the organization of the Westchester and Fairfield Horticultural Society. The writer had the pleasure of being present on the evening of



## SEND for our 1915 Spring Catalog

Your copy is now waiting for you.



E have been helping our customers to make successful gardens since the days

of Washington and Jefferson.

We have learned a good deal, and much of what we have learned you will find in our "1915 book."

It is easily the best book and most helpful book that we have ever gotten out. It helps both those who grow for pleasure and those who grow for profit.

> Drop us a postal today, and we will start your copy off in the next mail.

### J. M. Thorburn & Co.

Established 1802

530 Barclay Street, New York Through to 54 Park Place



F., a manufacturation of the boundary

### JOSEPH MANDA Orchid Specialist

≝into ala consumer. Laciment de colo.

Banchelle ... in the call of the its

West Orange - New Jersey

members, today we have an enthusiastic membership of Horticultural workers consisting of 280 active members, twenty honorary members and eight life members. Despite the general depression almost universally prevalent the past year, our membership lists were increased by the addition of twenty-one active members, one honorary member and one life member. The quality of our membership is reflected at all of the most important local as well as national exhibitions, where our membership is always represented in all the principal classes and usually carry off many of the highest honors.

During recess the members were entertained by several accounts of the convention of the National Association of Gardeners of America, recently held at Philadelphia, Pa. The banquet, leading seed houses and some of the fine private estates were discussed. All reported a pleasant and profitable visit. The usual monthly exhibition was of marked superiority.

The judges made the following awards: For roses, Mrs. Geo. Shawver, from Anton Peterson, a cultural certificate, also a vote of thanks for a fine vase of carnations "Matchless."

A cultural certificate to Thos, Ryan for vase of poinsettias, and vote of thanks for a vase of carnations.

Vote of thanks to Robert Grunnert for vase of carnations White Enchantress.

A. Wynne for a fine vase of carnations Sport of "Harlowarden" vote of thanks.

Vote of thanks to Jas. Foster for display of potatoes, Carman No. 3, also for vase of poinsettias and display of greenhouse grapes "Gros. Colmar." Narcissus Grand Soliel d' Or from P. W. Popp was awarded a vote of thanks.

A feature of the next meeting will be an illustrated lecture by an eminent authority. The subject will be, "The Conservation and Protection of Our Migratory Birds.' subject is an interesting one, and we anticipate a good attendance. Special cash prizes will be offered for 18 cut blooms of carnations, 3 varieties, 6 blooms of each, This competition will be held at our next meeting, January S, 1915.

P. W. POPP, Corresponding Secretary.

#### TUXEDO HORTICULTURAL SOCIETY.

The regular monthly meeting of the Tuxedo Horticultural Society was held in the Parish House on December 2. President David MacIntosh in the chair. There was a large attendance of members present. The nomination of officers for 1915 were taken. A letter was read from the secretary of the National Association of Gardeners as to how they intended to proceed with the co-operation of the different horticultural societies. The members of this society pledged themselves to give this movement all the support they can in the betterment of gardening in general.

Mr. James MacMachan addressed the meeting on flowering shrubs, it being one of the best lectures the society has had for some time. Mr. MacMachan did his subject justice, going very minutely into the different species and their many varieties showing the advantages and disadvantages of massing and single planting of each kind and showing the use of some varieties, not only as flowering shrubs but also for their Mrs. Taylor; 2nd, Eugene Meyer, Jr., sofine colored foliage in the fall of the year. Mr. MacMachan was extended a rising vote of thanks for his instructive lecture.

The next meeting being our annual business meeting will be held on January 6, THOS, WILSON, Secretary

#### NASSAU COUNTY HORTICULTURAL SOCIETY.

The annual meeting of the Nassau County Horticultural Society was held in Pembroke Hall, Glen Cove, L. I., December 9. President Gaut in the chair. Mr. and Mrs. J. P. Morgan were elected to honorary membership, and two petitions for active membership were received.

A communication was read from A. Fournier. Glen Cove, offering a prize of \$10 to be competed for at our fall show, 1915. The president then presented the Stump & Walter Company's cup, also the Nassau County Horticultural Society's cup (won at the dahlia and mum shows) to Frank Petroccia.

It was decided to hold our annual dinner on January 25, 1915. Judges for the monthly exhibits were Messrs, Lewenden, Fogarty and Gladstone, and their awards were as follows:

Vase of 25 mixed carnations-1st, F Honeyman.

Twenty-five Brussels sprouts 1st. T. Twigg. One cauliflower—1st, F. Petroccia. For exhibition of 3 cauliflowers—Certificate of culture awarded to F. Petroccia.

The treasurer then read the financial report, which was very favorable.

Election of officers being next in order. President Gaut called upon Mr. Duthie to take the chair and conduct the election and installation. Result of election--President Ernest Westlake; vice-president, James Me-Carthy; treasurer, Ernest J. Brown; recording secretary, Harry Jones; corresponding secretary, James Gladstone; trustee for three years, James Duthie. Executive Committee Wm. Gray, James McDonald, Angus McGregor, Geo, Ashworth, Jos. Adler, John Fogarty and Robt, Jones, JAMES GLADSTONE.

Corresponding Secretary.

#### NORTH WESTCHESTER HORTICUL-TURAL AND AGRICULTURAL SOCIETY.

The twelfth annual show of the North Westchester Horticultural and Agricultural Society was held in Mt. Kisco, N. Y., October 30, 31, November 1, and was, as usual, m to the mark in competition as in former years. Following is a summary of the awards, the judges being Mr. Jenkins. Lenox. Mr. Augus, Chapinville, Conn., Mr. A. Brill. Pawling, N. Y., and Mr. Johnson, Glen Cove,

#### Chrysanthemums.

12 blooms, open to members only. Ist Nephrolepis and for coleus in varieties.

ciety's end.

12 blooms in 6 varieties 1st, Mrs. Bowen, Greenwich, Conn., gardener, J. Watts; 2nd, Mrs. Taylor, Mt. Kisco, A. Thomson, gar-dener: 3rd, E. Meyer, Jr., Chas. Ruthven, vandener.

Best collection cut pompons—1st, E. Bayer, Mt. Kisco, A. Rose, gardener; 2nd, H. Park, Portchester, A. Marshall, gardener.

Best collection cut singles -1st, M. J. O'Brien, gardener; 2nd, Miss Bliss, New Canaan, Conn., J. Broms, gardener; 3rd, Mrs. Taylor.

Special Bailey Prize, best 24 chrysanthemum blooms, not less than 12 varieties-1st. Mrs. Bowen; 2nd, Hobart Park; 3rd, Mrs. Taylor.

Special prize, 12 plants, single stems—1st, Mrs. Neustadt, Chappaqua, D. Gordon, gardener; 2nd, Eugene Meyer, Jr.; 3rd, Mrs. Taylor.

Special prize, 6 bush singles in pots-Eugene Meyer.

Rest specimen bush plant Mrs. Lewis P. Child, New Canaan, Wm. Maginnus, gar-

Best 8 chrysanthemum plants, single stem 1st, Eugene Meyer; 2nd, Mrs. Neustadt.

#### Roses.

12 red roses 1st, Eugene Meyer; 2nd, Mrs. Child; 3rd, Mrs. Taylor.

12 pink roses 1st, Mrs. Child; 2nd, E. Meyer; 3rd, E. Bayer.

12 white roses 1st, E. S. Bayer; 2nd, Mrs. Child.

12 any color-1st, Eugene Meyer; 2nd, E. Bayer; 3rd, Mrs. Child.

12 blooms red curnations. 1st. Miss Bliss. 12 blooms white carnations-1st, Miss Bliss; 2nd, H. Park.

12 dark pink carnations 1st, H. Park; 2nd, Miss Bliss

12 light pink carnations 1st, II. Park; 2nd, Miss Bliss,

Special prize collection ornamental foliage plants 1st, Mrs. Taylor; 2nd, Mr. H. A. sparins.

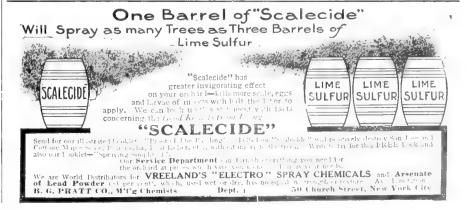
6 plants for table decoration—1st, H. Sparins; 2nd, H. Park.

Specimen fern-1st, H. Park; 2nd, Mrs. Taylor: 3rd, H. Sparins

M. J. O'BRIEN, Secretary.

#### A CORRECTION.

In the October issue of the CHRONICLE an error appeared in the report of the New Jersey Floriculture Society's Dahlia Show, giving the name of Alfred Thomas as gardener to Mrs. Arthur J. Moulton. Arthur W. Jackson is head gardener of the Moulton estate, and was the successful winner of the first prize for a model garden. He also received cultural certificate for a display of petunias, for Celosia, "Pride of Castle Gould,"



## **BOBBINK & ATKINS**

Product of the administration of the contraction of

"WORLD'S CHOICEST NURSERY AND GREEN-HOUSE PRODUCTS" GROWN IN AMERICA

Several years of constant thought and effort places us in a position to fill orders for all kinds of Nursery and Greenhouse Products for Outdoor Plantings and Interior Peconations, independent of European Importations. Among our many attractions growing in our 300 acres of highly cultivated Nursery are large quantities of the following specialties:

ROSE PLANTS.—Hybrid Tea. Perpetual and other varieties.

PALMS and FLOWERING PLANTS for Interior and Exterior Decorations.

SHADE TREES, FLOWERING SHRUBS and JAPANESE MAPLES.

HARDY OLD - FASHIONED PERENNIAL PLANTS,

BAY TREES and large leaved decorative plants.

PEONIES, German and Japanese IRIS,

DWARF, TRAINED and OR-DINARY FRUIT TREES, STRAW-BERRY PLANTS and other small Fruits

OUR NEW HYBRID GIANT FLOWERING MARSHMALLOW.

EVERGREENS and CONIFERS.
HARDY VINES and CLIMB-ERS.

CALIFORNIA PRIVET, BER-BERIS and other Hedge Plants.

BOXWOOD and other large leaved Evergreens.

DAHLIAS, CANNAS and other Bulbs and Roots,

JAPANESE FLOWERING CHERRY and CRAB APPLE TREES,

RHODODENDRONS, English Hardy Hybrids, Catawbiense and Maximum varieties,

PLANT TUBS, WINDOW BOXES, ENGLISH GARDEN FURNITURE and RUSTIC WORK.

Thou washand matching is. 15 tanding minute may 1 hours

The above are described and priced in our Hustrated General Catalog No. 45, mailed upon request. VISITORS are made welcome to inspect our Products, which is very important before placing orders.

"WE PLAN AND PLANT GROUNDS AND GARDENS EVERYWHERE."

CORRESPONDENCE INVITED.

NURSERYMEN, FLORISTS AND PLANTERS RUTHERFORD, N. J.

#### Tree Owners and Tree Lovers

TO A SHEED WHEN THE STREET THE STREET STREET STREET

Will find much to interest and instruct in the

## "TREE TALK"

Devoted to Arboriculture and Forestry.

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage. Published quarterly by

THE FROST & BARTLETT COMPANY
26 Cortlandt St. (Suite 212) NEW YORK

## Pulverized Sheep Manure From Big Feeding Barns No Adulteration-No Weed Seeds



THIS mark stands for the cleanest Sheep Manure in America—no pig manure, no adulteration—nothing but Sheep Manure, dried and pulverized, and all weed seeds killed. We guarantee it absolutely clean. Shipped in 100 lb. bags. Write for prices, delivered.

1 fall all fail to a second of the fail of the

NATURAL GUANO CO., 805 River St., Aurora, Ill.

## AN IDEAL FLOOR

### for PARK PAVILIONS and FOUNTAIN BASINS

This composition floor has great merit. It is non-porous, containing no decomposing matter. Can be laid over old floors of wood, cement or iron in any thickness desired. It is absolutely waterproof and fireproof. Hard and smooth but not slippery. Ready for use in forty-eight hours after being laid. SANITARY, PERMANENT, ECONOMICAL.

— FOR THE HOME —

KITCHEN, BATH ROOM, PORCHES, SHOWER BATHS

Circular and Samples by request

NEW YORK SANITARY FLOOR CO.

286 Fifth Avenue

NEW YORK

### This is the time to Spray your Fruit and Ornamental Trees with

## **SCALINE**

For San Jose, Oyster Shell and all scale on trees and hardy stock. An effective remedy for red spider on evergreens.



#### The Recognized Standard Insecticide

for green, black, white fly, red spider, thrips, mealy bug and soft scale. Can be used on tender plants.

#### **FUNGINE**

For mildew, rust and other blights. It is perfectly safe to apply to fruits and vegetables, as it is non-poisonous. An infallible remedy for rose mildew, carnation and chrysanthemum rust.

#### VERMINE

For eel, cut and wire worms working in the soil. It can be applied to all vegetation.

#### **NIKOTIANA**

A 12% Nicotine solution properly diluted for vaporizing, fumigating and spraying.

#### "40% NICOTINE"

A concentrated nicotine for vaporizing, fumigating and spraying.

If you cannot obtain our products from your local dealer, send us your order with remittance and we will ship immediately through our nearest agent

### Aphine Manufacturing Co.

Manufacturers of Agricultural Chemicals MADISON, N. J.

## BON ARBOR

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection. We can

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55 5 lb. package making 150 gallons, exp. extra 1.80

25 lb. package making 750 gallons,

50 lb. package making 1,500 gallons, exp. extra 12.50 100 lb. package making 3,000 gallons,

exp. extra 20.00 Barrels from 250 to 300 lbs., 18c. per lb.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon. 1½ gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

#### BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.



HEN it comes to Green-Houses, come to

General Offices and Factory-ELIZABETH, N. J.

New York 1170 Broadway

派師

Boston 49 Federal St.

ikewewememendindi

Philadelphia 40 S. 15th St

((1))



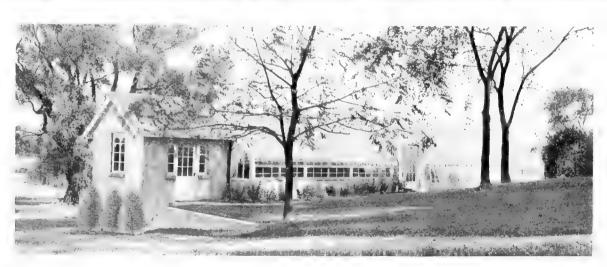
We are now prepared to make deliveries on the

## "PENNSYLVANIA" POWER LAWN MOWER

This Mower will meet the most exacting requirements and is in every respect a worthy member of the "PENNSYLVANIA" Quality family. May we send catalog P. M.?

"The Pennsylvania People"

Supplee-Biddle Hardware Company PHILADELPHIA, PENNSYLVANIA



## Senator Johnson's House at Hackensack, N. J.

THE particular feature of this very attractive house to which we want to especially call your attention is, that (lth auch of curved cave construction, the usual introduced little wall vents are not used; but there is a full row of side ventilating sash above the sill. It has been persistently and insistently claimed by other concerns that this could not be done with a curved cave

house "without making it look like a cobbled-up, botched job."

It would seem from this house of Senator Johnson's that we can do it in a thoroughly practical way without detracting from the attractiveness of the curved eave.

We would like to explain to you the neat, effective way it is done. You are welcome to our catalog.

SALES OFFICES.

New York
42nd St. Bldg.
Boston
Tremont Bldg.
Philadelphia
Franklin Bank Bldg.
Toronto—12 Queen

Street, East.

Chicago
Rockery Bldg.
Rochester
Granite Bldg.
Cleveland
Bldg.
Swetland Bldg.

& Burnham 6.

FACTORIES Irvington, N. Y.

### A recent example of a Greenhouse and Garage combined

which we erected in Germantown, Pa., is shown below. Last year we built the first house and the owner was so pleased with the results he obtained that he added two more houses this season.



At the Country Life Permanent Exposition on the third thort of the Grand Central Terminal, 42d St. New York City, we have erected for YOUR benefit a FULL SIZE GREENHOUSE where you can see, before you place your order, the many improvements which we employ in our modern Greenhouses of Quality. Our galvanized "VEE" SECTION sash bar finished in Aluminum is the last word in greenhouse construction. Write for a sample "VEE" Bar and be convinced of the superiority of our product.

Lutton greenhouses are to be found in all sections of the Country. Let us tell you where the nearest one to you is located, so that you can "ask the man who owns one" for his opinion. Gardeners all over the United States will testify to the efficiency of the Lutton type of greenhouse.

WM. H. LUTTON COMPANY Designers and Builders of Modern Greenhouses JERSEY CITY, N. J.

## Unlimited Variety of Cups and Trophies at the International Stores



Unlimited because eleven great factories are constantly supplying us with the newest ideas, in designs, shapes and sizes of Sterling and Silver Plate.

This is one of the reasons so many people come to the International Store to select their trophies.

Whether for important or unimportant events there is so much more satisfaction in choosing from among wide selections.

We are always glad to show you our great stock whether you buy or not, so come in and see us.

### INTERNATIONAL SILVER COMPANY

SUCCEEDING The MERIDEN Co. ESTABLISHED 49-51 W. 34th St., Through to 68-70 W. 35th St., New York





## Burpee's Seeds Grow

Thirty-eight years of continued selling seeds of Burpee-Quality has proved our incontestable right to this truthful slogan that stands for successful farms and gardens everywhere. Burpee's Seeds are known and used with universal success in all parts of the earth.

## Burper's Assection 1915

The leading American Seed Catalog is a bright book of 182 pages, with hundreds of illustrations and carefully written descriptions of vegetable and flower seeds. It tells the plain truth about Burpee - Ouality Seeds that Grow and is a safe guide to success in the garden. It is mailed free to everyone who asks for it.



## The Burpee

of Quality First—"to give rather than to get all that is possible." combined with efficient service. has built the world's greatest mail-order seed business. We deliver seeds free by parcel post and have n o t advanced prices because of the war.

## The House of Burpee

has introduced more distinct new varieties of vegetables and flowers than have any three other American firms. Our seeds are the result of years of careful breeding and testing upon our own seed farms in Pennsylvania, New Jersey and California. We trust that you will read our SILENT SALESMAN. A postcard will bring it, but please write today—"Lest you forget."

W. Atlee Burpee & Co.

Burpee Buildings

Philadelphia, Pa.





# 





"Westchester Pryde" Tomato. Pkt. 25c., 5 pkts. \$1.00. For descriptions see Spring Catalogue.

Speaking
To
Gardeners
OF
Novelties
AND
Specialties

New Introductions for 1915



"Silver King" Lettuce. Pkt. 15c., oz. 35c



Burnett's "Discovery" Musk Melon. Pkt. 25c. 5 pkts. \$1 00.

Front Cover of Catalogue the Shield that protects you

Back Cover
Design
Seeds for
the Country

Lawn Grass and Grass Seed Mixtures Our Specialty

We supply many of the Largest Estates in the Country

All exhibitors should give our Novelties a trial.

BURNETT BROS. Kelway's Prodigy Leek. Pkt. 20c., oz. 60c., 1/4 lb. \$2.00.

Study Security and deal with us

OUR 2001 not is a supply our customers with seeds of the highest germination and true to name. No stocks better, few are equal. BURNETT BROS.

Vegetables grown from our seeds have gained prizes at several of the leading Local Shows. Be convinced of their Superior Quality by favoring us with a trial order.

BURNETT BROS.

Our new Illustrated Spring Catalogue now ready-mailed free

BURNETT BROS., Seedsmen

98 Chambers St., Between Broadway and Church St. NEW YORK

# **OUR BIG "BOOST" NUMBER**

The March Issue of

# The Gardeners' Chronicle of America

Will Herald Two International Horticultural Events

The International Flower Show New York, N. Y.

The Panama-Pacific International Exposition San Francisco, Cal.

This March issue will be full of special features to interest our readers from Coast to Coast.

It will be distributed from our booth at the International Flower Show, Grand Central Palace, New York, March 15-23, 1915.

The March number will offer an exceptional opportunity to our advertisers.

### What space shall we reserve for YOU?

Advertising Forms Close on March 1st for this Special Number.

### THE CHRONICLE PRESS, INC.

Publishers Gardeners' Chronicle of America.

Editorial Offices, Madison, N. J.

Advertising Offices, 286 Fifth Ave., New York.

### 



Antonie Wintzer, the Cann't Wilari

### Wintzer Summer Orchid Swastika Cannas

IF you could come here to West Grove and heat Mr. Wintzer talk of his Cannas and their wondrous development, from the plain little red

from the plain little red flowered ones to the regal orchid-flowering kinds, you would not be content to go home without some. But not all of you can come to see Mr. Wintzer; but all of you can do the next best thing, and that is send for our new cata-

log and make your selec-

log and make your selections from it.

In it, you will find all the members of Mr. Wintzer's canna family, from the shortest to the tallest from the white ones, to the wondrously marked orchid kinds.

When those you order from the catalog burst into bloom next Summer, you will be genuinely grateful to us for urging you to make such selections.

## THE CONARD & JONES CO. Swastika Brand Cannas



# All Varieties **Thoroughly Tested**

T is the policy of Jas. Carter & Co. to thoroughly test every strain of flower or vegetable. Not until satisfactory results are shown by actual growing are they listed in the Carter Catalog.

That is why Carters Tested Seeds are so reliable and true to description.

If you have not examined the 1915 Carter Catalog-American Edition—write at once for your copy.



🖹 asanannanasasasanan amarananan ana sa . . .

CARTERS TESTED SEEDS, INC. 111 Chamber of Commerce Bldg., Boston, Mass.

Branch at Seattle, Wash. In Canada-133 King St. E., Toronto. Branch of Jas. Carter & Co., Raynes Park, England.

# Gladiolus "America"

The immense spikes and flowers can be forced without difficulty, vielding a handsome profit to the

The spikes are from 2 to 3 feet long, bearing extra large blooms of exquisite lavender-pink.

Mammoth Bulbs, inches and up, 40 cents per doz., \$3 per 100, \$25 per 1.000.

Send your order early for extra choice stock. Get our 1915 Catalogue of Vegetable and Flower Seeds—free to all who ask for it.



### DON

SEED MERCHANTS

114 Chambers St., New York City

We Design and Furnish

# Plans for the Finest Landscape Work

If you are contemplating any extensive park or estate planting communicate with us on your requirements.

Our Nursery is located at Scarborough, N. Y., near the railroad station, comprising over fifty acres, and contains one of the choicest and rarest collections of shrubs and trees in the country. We have been awarded for the last three years, by the Horticultural Society of New York,

FIRST PRIZE FOR THE FINEST AND LARG-EST COLLECTION OF HARDY SHRUBS AND TREES.

We will take pleasure in sending our catalogue on request.

### F. R. PIERSON COMPANY

Main Office and Post Office, Tarrytown, N. Y. Telephone, Tarrytown 48

JOHN SCHEEPERS & CO., Inc.

2 STONE STREET

NEW YORK

FOR HIGHEST GRADE BULBS

# COMPETENT GARDENERS

ב, ה הצינות ובייות היה בדי בל יוב היות ותוחות שנה בדותה בדי בל המתמוח המתחום היה בל בנות מתחום ומתחום ומתחום ומ Диниприяния принциприяния в принциприяння в принциприяння в принциприяння в принциприяния в принциприяния в при

¶ The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

q Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

Familian property of the recommend of the family

NEW YORK CITY

Incorporated 1911

100 HOPH.1 .

ANDREW K. KENNEDY, Pres. and Treas.

# KENNEDY & HUNTER

#### SEEDSMEN

IF YOU HAVE NOT RECEIVED OUR 1915 CATALOG, WRITE FOR IT NOW

156 West 34th Street One block from Penna. Station New York

"ONLY THE BEST"



# MEEHANS' Handbook of Hardy Plants

is now ready for you

A practical guide for the gardener unlike any other catalog. tiver a hundred pages, profusely illustrated. Describes many new

Contains special departments devoted to plants suggested for special purposes and notes low prices on larger quantities, simphtyring your purchasing problems.

Shall we send you a copy, Free? Write us today

#### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65, Germantown, Phila.

# CHRYSANTHEMUMS

Did you know that we sell more 'Mum plants than any other house in the world, and have done so for some years? Why? Because, we keep ahead of date and our introductions are always the prize winners, such sorts as Wm. Turner, Converse, Beatrice May, Meudon, Lloyd Wigg, Drexel, etc., having been distributed by us.

We introduced the Singles, now so popular, and in our Novelties in this section for this year are some splendid sorts.

We also popularized the Early Flowering varieties and opened up the way for thousands to enjoy the Chrysanthemum, who do not have a greenhouse.



EXCELSIOR

GOLDEN MENSA

W. BUCKINGHAM

Send for our complete list if you did not receive a copy.

Charles H. Totty

> Madison, N. J.

We were awarded a Gold Medal for our display of Sweet Peas at the American Sweet Pea Society's Exhibition. Museum of Natural History, New York City, June 27th and 28th, 1914.

# THE BEST NOVELTY SPENCER SWEET PEAS FOR 1915

- **BOADICEA.** A giant opal pink, delicately suffused pale cattleya mauve. The flowers are of great size and substance, and beautifully waved; a very strong grower, and always abundance of four bloom sprays. A gem for exhibition. (Very scarce.) Pkt. 30 cts.; 4 for \$1.00.
- BOBBIE'S FRILLED PINK. One of the most charming Sweet Peas ever raised. It is a Duplex form of Countess Spencer at its best. A distinct novelty, which will amply repay a little extra care. Pkt. 25 cts.; 5 for \$1.00.
- DON ALVAR. Grown side by side with all the best lavenders, Don Alvar was acknowledged by experts to be the best lavender yet seen. There is no difficulty in getting four and five flowered sprays. (Seed scarce.) Pkt. 30 cts.: 4 for \$1.00
- HELEN PIERCE SPENCER. Now fixed in true Spencer form. It is a most attractive flower and reminds one of a blue mottled Gloxinia. The ground color is white marbled and penciled with bright blue in thin lines on both wings and standard. The vines are vigorous and produce an abundance of strong stems, carrying invariably four large blossoms. Pkt. 25 cts.; 5 for \$1.00.
- JESSIE CUTHBERTSON SPENCER. Those grow ers who like a good stripe in their collection—and one or two are necessary in every collection-will welcome this grand addition. In the days of popular Grandifloras Jessie Cuthbertson was the favorite stripe, and our efforts to produce a Spencer form of this variety have now been rewarded with a fine large vigorous flower. The ground color is rich cream overlaid with stripes and marblings of bright rose pink. Both standard and wings are alike colored and the whole effect is bold and pretty. Pkt. 25 cts.; 5 for \$1.00.
- MARGARET ATLEE. This was a leading novelty last year and it has proved to be a great favorite. The color is warm salmon pink, perfectly suffused over a cream ground. The cream deepens into bright buff at base of standard and wings and this lights up the flower with great effect. The shade of pink found in Margaret Atlee is entirely a new shade and commands admiration. The flowers are of extraordinary size and many flowers measure two and one-half inches across the standard.

This variety bears a large proportion of duplex flowers, which greatly adds to its effectiveness. Margaret Atlee gained a Certificate of Merit from the American National Sweet Pea Society. Silver Medal, National Sweet Pea Society of Great Britain, July, 1914. Pkt. 25 cts.; 5 for \$1.00.

MONTESUMA. This is considered to be a great improvement on Senator Spencer. The flowers are a more pleasing color, being striped with reddish maroon, the base of the standard showing a touch of orange; a good grower, producing four flowered sprays in abundance. Pkt. 30 cts.; 4 for \$1.00.

NEW MARGARET MADISON. In New Margaret Madison we have a greatly improved strain of the popular lavender color found in our variety Margaret Madison. The size of the blossom has been almost doubled and the form of the flower is now all that could be wished for in a Spencer Sweet Pea.

The color, too, is daintier and prettier and is as near a true lavender as one could wish. The vines are very vigorous and the bold flowers are borne on long, stout stems and usually four blossoms to each stem. New Margaret Madison and New Miriam Beaver make a delightful soft color combination. Pkt. 25 cts.; 5 for \$1.00. NEW MIRIAM BEAVER. Many and varied are the shades of pink in Sweet Peas, but in New Miriam Beaver we have an entirely new and distinct shade of pink. It is the daintiest and most pleasing shade of pink yet discovered in Sweet Peas. The color is hard to determine, but we think that a soft shell salmon pink on cream ground lightly overlaid with soft hydrangea pink would convey a good idea of its uniqueness.

The color is evenly distributed over both stand-

ard and wings and is very light and pretty. The flowers are large, nicely waved-often du-

plexed—and beautifully placed on long stout stems. All other pinks look "heavy" beside this delight-New Miriam Beaver will be the ladies' favorite wherever Sweet Peas are grown. Pkt. 25 cts.; 5 for \$1.00. NORVIC. This is one of the largest flowered and

best strains of White Spencer Sweet Pea yet introduced. The blooms, which are of extraordinary size, are exceptionally well waved. It is quite fixed in character. Pkt. 20 cts.; 6 for \$1.00.

ORANGEMAN. A very fine large-flowered variety of true Spencer form. Color a rich, deep orange, beautifully waved. A very strong grower and equally good for both exhibition and market. Pkt. ; 6 for \$1.00.

ROBERT SYDENHAM. (Holmes.) most individual colors introduced into the modern Sweet Pea. It is a bright orange salmon self-colored, rather lighter than the Stirling Stent and deeper than Melba or Barbara. It is of immense size and owing to its soft texture needs a little shading during the middle of the day. It is a grand acquisition and created a great sensation when exhibited at the Great Annual Exhibition in London.

20 cts.; 6 for \$1.00.

ROSINA. One of the largest Sweet Peas yet intro-duced. The standard and wings are a bright rosy heliotrope, with a distinct wire edge of solferino red on a cream ground, which is particularly effective and distinct from anything seen in Sweet Peas. On account of its pleasing and taking color, it has been greatly admired wherever exhibited, and is sure to be a very popular variety. Besides being such a vigorous grower, the flowers are of Besides being extraordinary size and well frilled of the true Spencer type, with abundance of four and five flowered sprays; will make a striking bunch for exhibition. Rosina was the leading novelty that helped to win the Silver Cup for new varieties at the National Sweet Pea Society 1913 Show. Pkt. 30 cts.; 4 for \$1.00. ROYAL PURPLE. This we consider the best Nov-

elty seen last year. It was shown at the National and other Shows by Mr. R. Wright of Formby, and attracted a lot of attention on account of its fine royal purple color, great distinctness, and size. Duropinion we formed of it last year, and has been very generally admired. Awards of Merit, Royal Horticultural Society and National Sweet Pea Society, 1914. Pkt. 25 cts.; 5 for \$1.00.

VEILED BRIDE. This is a charming novelty, and is now perfected and fixed. The ground color is white, daintily flaked and marbled with soft rose pink. The wings and standard are alike colored. The form of the flower is all that could be desired. the standard being nicely waved, round and bold. When a bunch of this variety is gathered one must call it "Sweet," the delicate markings of pink being daintiness itself. Pkt. 25 cts.; 5 for \$1.00.

Collection one packet each above 15 varieties..\$3.50 3 Collections

,	
This offer may be used as an order sheet.	Check off the varieties or collections you require and mail at your convenience
Name	Gardener's Name
P. O	unty State State
Arthur T. Boddington, S	eedsman, 342 West l4th St , New York City

# Evergreen Trees

There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

#### Trees. Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs, Greenhouse Plants and Orchids.



# DREER'S GARDEN BOOK FOR 1915

Enlarged to 272 pages and handsomely illustrated with hundreds of photo-engravings, four beautiful colored plates, four duotone plates and gives many cultural notes written by experts. It is brimful of information valuable to both amateur and professional gardeners.

DREER'S GARDEN BOOK is indispensable to every one interested in gardening and offers the newest Roses, best varieties of Dahlias, and largest assortment of Hardy Perennials, Aquatic Plants, Bedding Plants, etc., also Flower, Vegetable and Farm Seeds, Lawn Grass Seeds, Tools, Implements and everything else required for successful gardening.

Write today for a copy, FREE and please mention this Publication.

# HENRY A. DREER

714-716 Chestnut Street

Philadelphia, Pa.

A FTER Thanksgiving the Private Gardener needs cut flowers. Bulbs haven't started to flower. The big 'Mums are gone, and Roses are coming for Christmas.



MRS E. D. GODFREY.

¶ Fill in the gap with the late pink Single Chrysanthemum, Mrs. E. D. Godfrey, and the bronze sport of Mrs. Godfrey, Miss Isabelle. Both varieties are welcome additions to the list for the Private Gardener and the Commercial Grower.

¶ Our list of Single and Pompon varieties includes the very best of these types.

In exhibition 'Mums we offer all of Smith's novelties and the best of the older sorts.

OUR CATALOG GIVES DESCRIPTIONS AND PRICES

Order your chrysanthemums from

AN PIERSON INC.

CROMWELL GARDENS

CROMWELL CONN

# The Contents---January, 1915

The Relation of Birds to Parks L. P. Jensen	9	Permanent Policy in Park Management De-	
Orchid Notes	10	sirable E. T. Mische	
Problems of Reforestation Arthur Smith	11	Park Institute of New England	31
Vegetables from the Home Gardens		Preliminary Schedule, American Sweet Pea	22
W. N. Craig	12	Society	
Practical Tree Surgery J. Franklin Collins	15	Lectures in Boston	
Panama-Pacific International Exposition	-	Queries and Answers	
_		Snapdragon Rust	33
	18	The Late John Munson	33
Some 1915 Chrysanthemum Novelties		Holland Nursery Stock Not Impaired	33
Begonia Gloire De Lorraine		New York Florists' Club	
Chas. McTaggart		National Association Directory	35
Distorting the Facts		Local Societies' Directory	35
Starting Small and Delicate Seeds	21		36
The Fuel Value of Coal	21	New Bedford, Mass., Horticultural Society .	36
Last Fall's Exportation of Holland Bulbs .	21	Tuxedo, N. Y., Horticultural Society	
The Poplar Tree's Soliloquy	21	Oyster Bay, N. Y., Horticultural Society .	
Brookside Gardens, Great Barrington, Mass	22	American Rose Society	
Editorial	24	Connecticut Horticultural Society	
National Association of Gardeners	25	New Jersey Floricultural Society	
Among the Gardeners		Westchester and Fairfield, Conn., Horticultural	
American Association of Park Superintendents		Society	37
Park Department Personals		Tarrytown, N. Y., Horticultural Society.	38
Seattle's Recreation System J. W. Thompson		North Shore, Mass., Horticultural Society .	
J. 17. A 110.1 poort		Tione, whose granous a sortioning to October	

# Stumpp & Walter Co.'s Catalog

Our 1915 Spring Catalog will be mailed to you on request, if you have not already received a copy.

Many New and Exhibition Varieties of Flower and Vegetable Seeds are offered. Farm and Grass Seeds are also a feature. Cannas, Dahlias, and Gladioli—the best varieties to date.

Stumpp & Walter 6 30-32 Barclay St.

# GARDENERS' CHRONICLE

### OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

JANUARY, 1915.

No. 1.

# The Relation of Birds to Parks

By L. P. Jensen, Missouri.

The rapid diminishing of our forest areas, and the extensive cutting out of, and destruction of, undergrowth in the remaining woods, leave few places for the nesting and protection of our valuable native birds. We are beginning to realize that the value of our birds is not only an æsthetic one, vis: their beautiful song and wonderful color, which alone would be sufficient reason for their preservation and protection, but a question of unusual economic importance.

When we look into the reports telling of the destruction caused by insects injurious to vegetation, and come to realize what a large number of obnoxious insects are exterminated by even one pair of insectivorous birds during a single season, the question of their protection be-

comes of vital importance to all of us.

Foremost and among the ones particularly fitted to take up this missionary work of protection and preservation of our beautiful and valuable feathered denizens of the air, water, woodlands and meadows, are the superintendents of public and private parks, estates and reservations, because the increase in number of insectivorous birds may mean the saving of many species of trees and other plants, on which the value of our parks and woodlands in a large measure depends.

It is not a hard nor expensive proposition to greatly increase the number of birds, in any given locality, when we once realize that the birds will stay wherever the conditions are such that suitable nesting places, food and

water are to be found.

The preservation of our native plants in their natural environments, the encouraging of undergrowth in our woodlands, the prevention of destruction of native plants in places not adapted to agriculture, and the replanting of waste land created by thoughtless destruction of native plants, is a work which the park and estate superintendent is particularly fitted to perform and encourage.

The accomplishment of this work would mean: First, the preservation of the wonderful scenic beauty of our country; second, the increase of our useful native birds, and third, through the increase of birds, a decrease of obnoxious insects, not to speak of the protection of numerous species of mammals, now on the verge of ex-

The following list, giving the nesting places of some of our common useful birds, may be of value as a guide to those who wish to attract them, by providing or preserving proper conditions for the establishing of their homes. which is the first and most important step to be taken, if we wish to have them remain and increase in number:

Birds which build their nests in deciduous trees: Red-

eved vireo, warbling vireo, yellow-throated vireo, cedar waxwing, scarlet tanager, American goldfinch, Baltimore oriole, orchard oriole, wood pewee, kingbird, hummingbird, robin, morning dove, and herons. To these we may add most of those which build in boxes, who generally build their nests in hollow trees and cavities.

Birds which build their nests in shrubs and low trees: Brown thrasher, catbird, vellow warbler, American redstart, rosebreasted grosbeak, least flycatcher, cuckoos, indigo bird, chipping sparrow, tree sparrow, wood thrush

and red-winged blackbird.

Birds which build their nests in coniferous trees: Golden-crowned kinglet, black-throated green warbler,

myrtle warbler, purple finch and blackbirds.

Birds which build their nests on the ground, or very near the ground: Wilson thrush, owen bird, black and white warbler, towhee, partridge, song sparrow, slatecolored junco, field sparrow, meadow lark, quail, bobolink, pheasant, spotted sandpiper, woodcock, nighthawk, whippoor-will, bank swallow and rail.

As tidiness and the health of woodlands often demand cutting out of trees containing hollows and cavities suitable as nesting places for some of our most valuable insectivorous birds, it becomes essential to provide artificial

nesting places for them.

Farmers' Bulletin No. 609, "Bird Houses and How to Build Them," by Ned Dearborn, gives detail information about the construction of bird houses, to suit the habit of the various species, and those who desire to build their own bird houses are referred to this publication, which may be obtained free from the Division of Publications of the United States Department of Agriculture, Washington, D. C

Various kinds of bird houses are manufactured and

may be purchased ready made.

For the sake of their appearance in the landscape, bird houses should be constructed of material in harmony with the scene, of which, when placed, they become a part,

and be as inconspicuous as possible.

The following birds will build their nests in boxes or bird houses: The bluebird, robin, chickadee, tufted titmouse, white-breasted nuthatch, dipper, tree swallow. barn swallow, martin, song sparrow, phaebe, crested flycatcher, flicker, woodpecker, screech owl, barn owl, and wood duck.

Modern architecture leaves few nesting places for those birds which formerly inhabited the barns and buildings of the early settlers, whose construction provided many hollows for the homes of phaebes, barn swallows and cliff swallows. The modern designer of park structures ought to provide some accommodation for these valuable insect exterminators.

For those birds which come early in the season, before an abundance of their natural food is to be found, or for those which remain with us during the winter, when snow and ice cut off their natural food supply, food must

be provided, if we wish them to stay, or they will migrate to places where food is to be found, or perish.

Suet should be hung on the branches of trees and seeds, grain or other suitable food placed where it may be

found by the birds.

Boxes may be made or bought for this purpose. Berrybearing trees and shrubs should be planted in abundance wherever possible for the accommodation of the birds, as well as for their æsthetic value of brightening the landscape in winter and summer.

Coniferous trees are valuable to protect the birds from

cold and from their enemies.

Where the natural supply of water is not abundant it should be liberally provided. Shallow pans are valuable for this purpose.

The most serious enemies of the birds are:

First—The small boy with a rifle. He should be converted by education. Second—The stray cat. Should be exterminated. Third—The English sparrow. Should be caught by traps and utilized as food. Fourth-The red squirrel. Should be kept checked so as not to become too numerous. The gray squirrel should not be considered as an enemy of birds; in most localities the gray squirrel needs protection from extermination.

Hawks, owls and other birds of prey should not be condemned, for while they undoubtedly do some damage, this damage is generally more than repaid by their perpetual destruction of mice, rats, shrews, moles, rabbits,

weasels and English sparrows.

Societies such as The American Association of Park Superintendents, The Society of American Florists, The National Association of Gardeners, and others, whose object is the protection of plants from the ravages of insects, and their cultivation for ornamentation and use, should have committees on bird protection.

It is not the object of the writer to go very deeply into this interesting, useful and fascinating subject, but an attempt to induce the reader to take a hand in this work, the success of which needs the personal effort of all

thoughtful persons.

The following list of a few of the best books on this

subject may be of value:

E. H. Forbush, "Useful Birds and Their Protection," published by the Massachusetts State Board of Agriculture, Boston, Mass.

"Bird Houses and How to Build Them," by Ned Dearborn, Farmers' Bulletin No. 609, U. S. Department of Agriculture, Washington, D. C.

Wm. H. Hornaday, "Our Vanishing Wild Life." Pub-

lished by the New York Zoological Society.

Chester A. Reed, "Bird Guides," published by Doubleday, Page & Co., Garden City, N. Y. Valuable for the identification of birds.

#### ORCHID NOTES.

It has been almost a century since Cypripedium insigne was first introduced; now it is as common as it is old. The cultivation of it is comparatively simple or it would not survive the very rough treatment that this orchid often receives. Somehow C. insigne always seems to be in the way, consequently, they must be moved from place to place to make room for some plants that are thought to be of more importance for the time being, and eventually they are carried out of doors to be placed in cold frames for the summer, says a contributor to The American Florist.

There certainly is no need for treating cypripediums roughly considering the attention they require and the space they occupy; any neglect of needed attention is shown by the flowers produced, only too often are they kept in the summer quarters too long, or placed in a very cool greenhouse for the sole purpose of retarding the flowers, which only results in securing a crop of useless short-stemmed blooms. There are quite a number of the green-leaved cypripediums that are good for florists' use, but in addition to the above variety, C. Leeanum, C. Nitens and C. Villosum are best for winter use, and with only ordinary watchfulness will thrive in a cattleya house, and they will also succeed in a house suitable for carnations providing they are given sufficient shade during summer. This they need under any considerations; either permanent shading on the glass, or blinds of some description.



I's Courtesvol . VASE OF CYPRIPEDIUMS AND ASPARAGUS

These terrestrial orchids do not require repotting very often, for the finest flowers are procured from pot bound plants, but when potting does become necessary, use a compost of solid lumps of peat, fibrous loam and sphagnum moss in equal parts. The pots need to be filled quarter full of broken crockery for drainage, and see that the plants are not set too deep into the pots (the base of the leaves should be level with the top of the pot), place the compost firmly round the plant, water sparingly for some time afterwards, but spray them often, and keep the surroundings damp to maintain a nice growing atmosphere at all times. The summer flowering varieties such as C. Lawrenceanum, C. barbatum and C. callosum, with many others have mottled leaves and they require a little warmer treatment than those having green leaves.

# Problems in Reforestation

By Arthur Smith, Pennsylvania.

Reforestation problems divide themselves broadly into three main issues. The planting of forest trees (1) upon land which has not, at least for several generations, been in forest before and which is of no real use in an agricultural sense; (2) forest land from which lumbering operations have cleared away more or less all trees and upon which there is no natural renewal taking place, and (3) land upon which the entire growth has been destroyed by fire. The latter, especially in the case of coniferous forest, generally presents the most difficult problem, the more so the steeper the slope of the ground, because where hillsides have been denuded of growth, from any cause, either fire or lumbering, for a greater or less number of years, erosion is causing the removal of the soil in which trees can grow, and it is only a matter of time when these areas will become impossible to reforest.

It is not difficult to imagine the condition of things when the closing of the glacial period removed the ice cap back to the arctic regions. At that period the entire earth which had been covered by this ice cap must have been absolutely devoid of plant life. How many thousands of years elapsed from the first subsequent appearance of plant life in the form of lichens to the time when forests came into existence, we have no means of knowing, but the point to be borne in mind is, that thousands of acres of mountain and hillsides are now rapidly reverting to the conditions which prevailed at the close of the ice age, and therefore the longer reforesting is delayed the more difficult it will be to carry out.

Ultimate success in forest planting depends upon securing a canopy at the earliest possible date; this is

brought about by the density of growth.

Density may be defined as the thorough shading of the ground by the forest crop. In a wood of good density the layer of fallen leaves is protected from sun, wind and heavy rain, which would rot it too quickly or wash it away; it lies upon the ground as a mulch, slowly rotting and turning into food for the trees, and its quantity is kept up and even increased by the annual fall of leaves. In this way the soil is maintained sufficiently fertile for the trees to thrive. As a rule dense or crowded woods keep up their own density; thin or open woods, not ripe for lumbering, should have their density increased by underplanting. Density depends chiefly upon the number of trees, but partly also upon the thickness of their crowns. The best density is usually found where trees are doing well; upon poor soil in exposed sites, although there may be more trees per acre, the density is rarely so good. Therefore trees should be planted closer upon poor soil, especially on hillsides, than where the soil is better and more level. I know there is a difference of opinion upon this point. A forester, who had graduated from a college of forestry, once told me he had been taught there that trees should be given more room upon poor soils than upon richer ones. But it is obvious that the loss of fertility owing to insufficient shading of the ground had been left out of consideration and the importance of obtaining a canopy as soon as possible entirely lost sight of.

Canopy may be called the roof of a wood; without it there is no density. Young trees are said to form canopy as soon as their branches meet. At this period the branches are resting upon the ground and all

growth, excepting that of the trees themselves, is practically smothered. As the trees push upward their lower branches die from want of light, their stems clear themselves and the canopy rises until it is many feet above the ground: a more or less flat roof supported upon smooth clean stems as upon pillars. Without density tall clean trunks are impossible, as it causes the branches to die off before they become large enough to form knots. A straight log free from knots will invariably have a greater value than one double the size that has been given room enough to produce more or less thick branches.

The object of underplanting thin or open woods is to improve their canopy. This underplanting should consist of species which are more or less shade-bearers, those liking shade the least being planted in the most open spots. Among deciduous species beech will stand more shade than any, and of the conifers white pine, is probably the best shade-bearer, although in Europe the silver fir takes the first place in this con-

nection.

With the idea of obtaining a canopy earlier when the entire ground has to be planted, what are called "nurses" are sometimes used which are cleared away before they interfere with the growth of what is intended to be the crop species. The nurse trees in the case of conifers may be a species saleable for Christmas trees, in which case they often bring in sufficient cash to pay for the expense of reforesting up to that time. Where the ground to be planted is naturally covered with weeds and shrubs these act to a considerable extent as nurses, care being taken to see that the young trees are not smothered; the latter is, however, necessary in all cases. The removal of nurse trees should be done gradually and first from that portion of the planting which is the most thrifty, that is, where the crop species are making the greatest growth. Where hardwoods are planted for the main crop, larch makes a good nurse. The Japanese species has of late been planted pure in many parts of the Eastern States, but the European is considered more drought resisting, although they are neither suitable for very dry soil.

The use of nurses is not absolutely necessary, as the planting of one species more thickly than is required for a permanent crop answers the same purpose, provided thinning is done at the right time. If the earlier thinnings are of no value the benefit to the main crop from close planting more than pays for the extra

expense.

În notes of this kind one can only deal with general principles, as correct methods of carrying out details always depend upon local conditions.

#### OUR COVER ILLUSTRATION.

The illustration on our front cover page is a reproduction of a photograph of the garden of palms, under glass, in the Missouri Botanical Gardens, St. Louis, Mo. We have been fortunate in securing a photographic collection of the new conservatories in Shaw Garden, Missouri Botanical Gardens, never before published, which we shall present to our readers in the February issue of the Chronicle. The range of glass at Shaw Garden is considered one of the most interesting of any public institution in this country and, when finally completed, it will be one of the finest ranges of its kind in existence.

# Practical Tree Surgery\*

By J. Franklin Collins, Washington, D. C.

Tree surgery, or, more properly, tree repair work, is not a mysterious art known only to a favored few who alone are fitted to undertake it. It can be undertaken by any careful man who has a good general knowledge of the structure and life history of a tree, its normal manner of covering wounds, and how insects and decay organisms cause damage, provided he can handle a gouge and mallet, a saw, and a tar brush and applies in a practical manner his knowledge of the anatomy of a tree, together with a generous admixture of good common sense. For work in the tops of trees he will also need a clear head and ability to climb. Many tree owners and many persons in charge of private estates are well qualified to undertake tree surgery if the requisite time is available and they will familiarize themselves with the fundamental principles and operations underlying the work, at least to the extent presented in this article.

It is no easy matter to find a place where the well-worn phrase "prevention is better than cure" could be applied with greater appropriateness than in connection with tree surgery. Ice or wind may break limbs or uproot trees which injure others as they fall. Horses commonly gnaw away portions of the bark of street trees unprotected by tree guards. Telephone, telegraph, and electric linemen with their climbing spurs and saws are notorious mutilators of shade trees, especially in towns where the trimming of trees is not regulated by law. Poorly insulated electric wires of high voltage often discharge heavy currents through the trees. Wheel hubs frequently tear away large pieces of bark. After a few years, decay may penetrate into the interior of the tree from any or all of these injured places. This decay may increase from year to year until large limbs, or the trunk itself, become so weakened that they are easily broken by violent storms. It requires comparatively little time and expense to clean and paint a fresh injury. It often requires much time and expense to treat properly the same injury after it has been neglected for a few years.

The most economical and reliable remedy for a decayed area consists in attending to an injury as soon as it is made, perhaps 20 or 30 years before it becomes a menace to the tree. This fact should never be forgotten by tree owners or persons who are charged with the care of trees. If put into practice, it will insure a profit of many hun-

dred per cent on the original outlay.

In its simplest type, tree surgery, as it is popularly understood at the present time, consists in removing dead or decayed limbs or stubs from a tree and treating the scar with an antiseptic and waterproof covering to prevent decay while healing. Another type consists in cutting out the decayed and diseased matter in trees and filling the cavities with cement or other material to facilitate the normal healing-over process. This is often referred to as "tree dentistry," a term which very aptly indicates the character of the work. Filled cavities do not increase the strength of the trunk or limb to the extent that is generally supposed.

The work on dead or diseased branches can be regarded as comprising but two essential operations: (1) Removing the branches in a manner that will prevent injury to the surrounding bark and cambium, which is the thin and usually watery layer of young tissue located between the bark and wood of all healthy parts of a tree, and (2) sterilizing and waterproofing the scars.

\*From Angelein Fliestr

A large limb should never be removed by sawing through from the upper side, as this usually strips the bark and wood below the scar. The proper way is to make the first saw cut on the under side, from six inches to a foot beyond the point where the final cut is to be made. It should reach from one-fourth to onehalf through the limb. A good time to stop cutting is when the saw becomes pinched in the cut. The second cut is made on the upper side of the limb, an inch or two beyond the first one. This is continued until the limb falls. After the limb has fallen, a third cut is made close to the trunk and in line with its woody surface. When nearly sawed through, the stub must be supported until completely severed, so as to avoid any possibility of stripping the bark below as it falls. The first and second cuts to prevent stripping may be omitted when small limbs which can be held firmly in place until completely severed are being cut.

When the scar is not naturally pointed above and below, it is a good practice on most trees to remove a short triangular piece of bark from the upper edge of the scar and another from the lower edge, so as to anticipate its dying back at these points. This makes the scar pointed at both ends, the most favorable shape for healing. It is important that some good shellac be applied with a suitable brush over the edge of the bark, especially the cambium, immediately after the cut is made. If the scar is a large one, it is a good plan to use the knife for one or two minutes and then shellac the freshly cut surfaces, repeating the operation until all the bark around the scar has been shellacked. The full benefit of the shellac will not be achieved if many minutes elapse between the cutting and the shellacking, unless the freshly cut sur-

faces are visibly moist with sap.

If necessary, the woody surface of the scar may now be smoothed off with a chisel and mallet to conform in general shape with the tree trunk. It is bad practice to

leave a stub projecting from a trunk.

The final operation is to sterilize and waterproof the surface of the exposed wood and bark. For this purpose many preparations have been used. Recent extensive tests by specialists in timber preservation indicate that some of the creosotes stand far ahead of all other tested preparations in their power to destroy and prevent the growth of certain wood-destroying fungi and that ordinary creosote, although it does not head the list, is far better than other preparations except some of the less known and less available creosotes. Furthermore, creosote penetrates the wood better than a watery antiseptic. In using commercial creosote, it can be applied with an ordinary paint brush over every part of the exposed wood. The entire shellacked and creosoted surface must finally be waterproofed by painting it with heavy coal tar. A single application of a mixture of creosote and coal tar (about one-fourth or one-third creosote) has been quite extensively used with good results. Although one coating of this mixture may at times be sufficient, it is always safer to follow it with a heavy coat of coal tar.

Permanent waterproofing can be secured only when the treated surfaces are watched from year to year and recoated when any tendency to crack or peel is observed. This is an important step, which is almost invariably neglected by tree owners and tree surgeons.

During the last few years there has been a widespread

popular interest in the treatment of decayed places in old trees. This type of work can be regarded as comprising three essential operations: (1) Removing all decayed and diseased matter, (2) sterilizing and waterproofing all cut surfaces, and (3) filling the cavity in a manner that will favor rapid healing and exclude rot-producing

organisms.

The necessary tools for digging out decayed matter are few. As a rule, two outside-ground socket-handled gouges (one with a curved cutting edge of about three-fourths of an inch and the other, perhaps, one and one-half inches), a chisel, a mallet, a knife, and an oilstone are sufficient for ordinary work. The gouges, chisel, and knife should never be used near the cambium when they lack a keen edge, as dull tools will injure it. In cutting out deep cavities, longer interchangeable handles for the gouges may be necessary.

Usually an old decayed spot may be partially or wholly covered by a new growth of wood and bark at the edges and the visible decayed area be small as compared with that which is hidden. In such cases it is usually necessary to enlarge the opening with the gouges and mallet in order to make sufficient room in which to use the gouges in the interior. This opening should be sufficiently long to reach all the decayed and diseased heartwood with

little or no additional injury to the tree.

If the decayed and diseased wood extends some distance above or below the external opening, it is a common practice to cut one or more holes above or below the main opening in order to facilitate the removal of the diseased wood. This results in one or more bridges of wood and bark spanning the long interior cavity. This practice is of doubtful value, partly because it is often impossible to see whether the diseased wood has been entirely removed from the under side of the bridges, but mainly because there is a strong tendency in most trees for the bark and sapwood of the bridges to die and decay as a result of severing the sap-conducting tubes both above and below. If the holes are pointed above and below, there is less trouble from this source. A practice that permits a more thorough cleaning out of the cavity is to make a narrow opening, pointed at both ends and sufficiently long to include all the diseased wood. This often extends some distance above and below the visible discolored area.

The most important feature of this stage of the work is to remove all the diseased and insect-eaten wood. This excavating must continue on all sides of the cavity until sound, uninfected wood is reached. All discolored or water-soaked heartwood should be removed, as this is the region in which the rot-producing fungus is most

active.

Another important point to be borne in mind in shaping a cavity that is to be filled is to have the sides undercut if possible, so as to hold the filling firmly in place. Care must be taken, however, not to have the wood at the edges of the opening very thin, as this promotes the drying out of the bark and sapwood at these points. Ordinarily the edges should be at least three-fourths of an inch thick; an inch and a half would be better.

Great care must be exercised in working around the cambium, and all cutting tools must be kept very sharp. The final cutting along the edges of the bark and sapwood can usually best be made with a very sharp knife. This cutting must be followed immediately by a coating of shellac, which should cover the edges of both bark

and sapwood.

Before cementing a long cavity it is advisable to place through it one or more bolts, so as to hold the wood and cement more firmly in place. A cavity two feet or less in length will not usually require a bolt, but long cavities, as a general rule, should be bolted every 18 to 24 inches. Oftentimes a single bolt can be placed so as to support both sides. In certain cavities it may be necessary to place bolts at different angles. In any case a strip of uninjured cambium at least an inch wide should be left between the edge of the cavity and the bolt. On medium-sized trunks, after deciding where the bolts can most efficiently be placed, a very sharp half-inch bit, sufficiently long to reach through the trunk and cavity, can be used to bore the hole for the bolt. On large, heavy trunks a larger bit should be used. Heavy oval or round iron or steel washers, about three times the diameter of the bolt, should be countersunk into the wood by carefully cutting away the bark at both ends of the hole with a sharp gouge or chisel.

All split cavities must be securely bolted, particularly near the upper part. If the split comes from a crotch, all decayed and diseased wood should be removed from the split and creosote and tar applied, after which it can be bolted just beneath the crotch, so as to close the crack or at least bring the parts back to their normal position in case decayed matter has been excavated from the crack. If the split is a recent one, a washing of creosote only will usually be sufficient before drawing the sides together with bolts. Under certain conditions, particularly in large trees, it may be necessary to use a rope and tackle blocks to pull the limbs together some distance above the crotch, in order to properly close the crack before bolting it

If the cavity has a comparatively large opening or has little or no undercutting, it is the custom to drive flatheaded wire nails into the wood in the interior in order to hold the cement filling firmly in place. In medium-sized cavities nails two and a half or three inches long are usually driven into the wood for about half their

length.

After the decayed and diseased matter has been completely excavated and the edges of the sapwood and bark shellacked, the next step is to sterilize the interior of the cavity in order that all germs of disease or decay which are present may be killed and that any which may come in contact with the cut surfaces during subsequent operations may be destroyed. As already stated, creosote appears to be one of the best preparations to use. Every cut part of the wood and bark must be creosoted, and over this a heavy coating of tar or hot asphalt should be applied before the cavity is filled.

A good grade of Portland cement and clean, sharp sand free from loam (1 part of cement to 3 or less of sand) should be used. A quantity of dry cement and sand sufficient to fill the cavity should be thoroughly mixed before the requisite amount of water to make a rather stiff mortar is added and the whole mixture worked to an even consistency. In large cavities fine gravel free from loam is sometimes substituted for the sand.

For placing the mixture in the cavity a mason's flat trowel and an ordinary garden trowel with a curved blade will be found convenient. A tamping stick, I or 2 inches thick and I to 3 feet long, according to the size of the cavity, will be needed; also some rocks and a pail of water if the cavity is a large one. A layer of cement 2 or 3 inches deep can now be placed in the bottom of the cavity with the garden trowel and tamped firmly in place. This operation is repeated until the cement is 8 to 12 inches thick. Wet rocks of various sizes may be embedded in the cement provided they do not reach within an inch or two of its outer face. If the mixture is too wet, it will tend to run out of the cavity under the operation of tamping. If too little water has been used, it will not pack down promptly. The top of the 8 to 12-inch

(Continued on page 20.)

# Vegetables From the Home Garden

By W. N. Craig,\* Massachusetts.

Horticulture has its full share in the ceaseless activity of the present age. Changes in the vegetable garden, the varieties grown, and methods of culture show just as great changes as are to be witnessed in the present improved methods of locomotion, lighting or sanitation. There have been, within the last twentyfive years, particularly striking improvements in potatoes, peas, tomatoes, beans, and in fact, all standard vegetables. There are now practically no periods in the year, even in midwinter, when a good assortment of vegetables, either of greenhouse or Southern outdoor culture, is not obtainable.

We hear much nowadays of trusts, and the high cost of living is dwelt on, not only here, but in practically every civilized community on earth, and a late President suggested an international tribunal to consider the causes of high prices and suggest remedies. Perhaps the most practical remedy which could suggest itself would be for more families to plant fruits and vegetables in their home gardens. The European countries are far in advance of us in this respect; there, every workingman who has the least ambition, rents a piece of ground if he has none attached to his home, and grows a fine variety of vegetables; in Great Britain, large numbers of workmen even have small greenhouses in their gardens, in which to grow a few flowers and early vegetables, and start their seedlings in. It should be possible for many to have modest greenhouses here; they need not necessarily be heated through the winter, but utilized for starting early plants for the home garden, both flowers and vegetables. Where a greenhouse is not possible, it does not cost much to have a cold frame with two or more sashes, which can be used as hot-beds for starting tomatoes, celery, lettuce, egg plants, cabbages and other plants. It is simply astounding that so many residents in these United States prefer to buy their vegetables the year through, when they, in many cases, have facilities for raising the same at home. We see many fine homes with their lawns and shrubs, veritable Queen Anne fronts, but too often, alas! what we might say, "Mary Ann" backs. For it is too true that beyond collections of junk, ashes, and other rubbish, what might be in many cases a garden of utility is only an

Vegetable gardens should always, if possible, be made where they can get a warm, sunny exposure; if sloping south the crops will be earlier, but this is not essential. Vegetables will grow well in almost any soil in which water does not stand. Such soils require drainage to produce good crops; drainage warms as well as sweetens the soil. The best manure for nearly all vegetables is well rotted cow manure or horse manure, if applied and worked in. In the fall, fresh manure can be used to advantage, but it is better not to use such when near planting time. It is always well to save and bury as much of the humus or vegetable matter as possible; too often this is thrown on

the rubbish heap.

In considering any general order for work in the vegetable garden the leading principle should be that its productive powers should be taxed fully. There need be no resting of the ground, and it is very easy if there should, perchance, be a surplus of any crops,

"Extracts from purey is a herore Horncultural Society of New York, January 20, 1915.

to give them away, and in the case of the Brassica family, to return them to the soil for manure. Hard cropping, of course, is not possible unless the land is liberally manured and the surface soil kept constantly tilled. To put little in and take out much means virtual exhaustion; a whip will not work as a substitute for corn for a horse with hard work to do; nor will a candle burn long if lit at both ends. Always dig deeply, and when occasion will permit trench a couple of spits deep. Change crops from year to year where this can be done; this is not absolutely necessary and it is not always possible to do it, but the majority of vegetables do better with a change of ground.

Soils which are sour or acidy should have a liberal dressing of lime; this is best applied in the fall after the crops have been gathered. Sufficient lime is not used in America; once in three years the bulk of soils are benefited by an application; do not apply the lime, however, at the same time as manure, as the lime will release much of the nitrogen from the latter. Barnyard manure cannot always be procured, but good crops can be produced, with chemical fertilizers alone; these, however, must be used with greater precaution than the manure. Too often fertilizer is used in seed drills, and the seedsmen are blamed for selling poor seed, where the seedings have been practically destroyed by the fertilizer; the safer plan is to broadcast and harrow it in well, also to use it between rows of growing crops to stimulate them.

A list of vegetables of proved excellence and a few words on their culture is apt to be tedious, but there are so many starting a garden each year that something must be said on this subject. These remarks are intended rather for small growers, and not for those who are operating market gardens. The best growers of vegetables are not necessarily market growers or practical gardeners at all. In Great Britain much finer leeks, potatoes, celery and cauliflower are grown by the artisan classes, who take a keen interest in vegetable culture, than by the professionals, and there is no reason why it cannot be accomplished here.

Peas are one of the important vegetables and the first sowing should be put into the ground as soon after it is open as possible. We hear it commonly stated that it is too early to sow peas because the ground has not become warmed. The warmer and drier the soil gets the poorer the peas will do. We have sown these as early as March 10, and in late seasons not until the first week of April; but just as soon as the frost has left the ground it should be spaded and plowed, manured liberally, and a first sowing made; successional sowings can be made until the end of May, after which time it does not pay to sow them, but for a fall crop, a sowing can be made about July 25. Dwarf peas are to be recommended for small gardens; probably the best of these is Sutton's Excelsior; Nott's Excelsior is very good also; both of these are heavy croppers. Later varieties, such as Thomas Laxton, and Gradus, are excellent, but should have good supports. Birch brush is the best support for peas; wire netting may be used where birch is not procurable. Good succession peas to follow those already nama! are Alderman, Dwarf Champion, Sutton's Dwarf D^fiance, Juno, Improved Stratagem, Advancer, Quite Content, and the old Champion of England; the latter should not be grown where it cannot be given good supports, being a tall grower, but it is a very productive variety.

Beans are of much easier culture than peas and will succeed in soils where peas would be an utter failure; they can also be picked over quite a long season; we have picked string beans as early as June 28 and last year as late as October 12, which gives a fairly long season. First sowings of string beans can be made from April 15 to 20, and successional sowings made until August 1 for late pickings. Triumph of the Frames and Plentiful are the earliest varieties we have grown. Stringless Green Pod and Valentine are excellent later sorts. Improved Goddard and Dwarf Horticultural are splendid string and shell varieties. Wax beans are handsome and sell well; their appearance helps them to sell, but their flavor is far inferior to that of the green podded sorts. Rustless golden wax and stringless white wax are reliable varieties. Lima beans should not be sown until we get settled warm weather. The dwarf varieties are of comparatively recent introduction, and for the small grower are far to be preferred to the pole sorts. The earliest of these is the small Henderson Bush Lima; many prefer the flavor of this to all others. Dreer's Lima is a sure cropper in wet seasons. Fordhook Lima is superior to the Burpee's in both size and flavor and will eventually supersede it.

Potatoes are the most important of all garden vegetable crops. They will succeed in a great variety of soils, if proper preparation of manuring has been given, but the best soil is a deep, rich, friable loam, well drained, where there is no possibility of water standing in a wet season. Far more owners of gardens should grow their own potatoes; they cost the average household more money than any other vegetable, and there is nothing difficult in their culture which should deter anyone from planting them. Fresh manure should never be used when planting potatoes; it can, however, be worked in the soil the previous fall; the best plan is to plant them to follow some crop for which the ground was heavily manured the previous spring. Early planting pays the best, particularly so when we get such severe droughts as in the summer of 1911. Rows three feet apart and sets fifteen inches are correct distances. For a very early crop it pays to sprout a few tubers in boxes containing a single thickness of each, stood erect and as close as they can be packed. The general practice is to spread fertilizer in the drills before planting the sets; a far better plan is to broadcast it after the potatoes have been planted. Where fertilizer alone is used, 600 pounds acid phosphate, 500 pounds kainit, and 200 pounds nitrate of soda per acre can be applied, using the nitrate of soda after the growth has started. Small growers had better use some special potato fertilizer.

Differences of opinion arise about cutting sets; we like them to have two eyes each, and such sets from large potatoes are more productive than if cut from small ones. Single potatoes of small size do not average so well as sets cut from large potatoes. The ground should be kept constantly stirred, both before and after the potatoes start to grow, and this must be done very persistently, and particularly after each rainfall. The potato beetle and blight can be controlled by spraying. As to varieties, Early Norwood and Aroostook Pride as earlies, and Green Mountain as a main crop variety are sufficient. If restricted to one variety, it would be the reliable Green Mountain.

The Brassica or cabbage family cannot be omitted from any vegetable garden; all like well-manured land. Excellent cabbages for early are Copenhagen

Market and Jersey Wakefield; for late, Danish Baldhead and Danish Roundhead; these latter are harder and far superior to the Drumhead types. Early cabbage can be started in a frame in March and planted out about April 15. Winter sorts should be sown about June 1. Cauliflowers for an early crop are best grown in a cold frame where they can be watered. For a fall crop, seed should be sown as near May 25 as possible. Kronk's Perfection Erfurt for early, Dry Weather and Snowball for late, are splendid varieties to grow. Brussels sprouts should be sown as soon as the ground is open, and later planted out in rows three feet apart, and two feet between the plants. These are splendid and choice winter vegetables; with the cabbages they should be lifted and heeled in a cool cellar before the frost becomes too severe. Aigburth is a first-class sort, so is Dobbie's Selected. Savoy cabbage is preferred by some to the common cabbage; the culture is the same, and the Drumhead variety the best. Green curled kale or borecole is a very hardy member of the Brassica family, and of very easy culture; heeled in with the cabbages it can be used from February to the last of April, and is superior to the greens brought from the South. It should not be housed until it has had several good freezings.

No garden is complete without tomatoes. are easily raised in the house or cold frame, and if strong plants are set out, fruit may be picked by the middle of July and until killing frost. To secure good tomatoes they should not be allowed to ramble over the ground at liberty, but trained to stakes, fences, or some other support. We prefer to retain two of the bottom laterals, with the main stems, and to rub off all other laterals, also cutting back some of the leaves, especially when the plants are tied up to stakes. Trained plants have many advantages to compensate us for the care bestowed upon them, the fruit is always clean, and readily seen when wanted, ripens better, and has a superior flavor to those borne on plants which are bespattered with soil after every rainfall. Excellent early tomatoes are Chalk's Early Jewel and Lister's Prolific. For a main crop, nothing is superior to the old reliable Stone. Aristocrat and Dwarf Stone are fine dwarf types, excellent for very small gardens. Golden Oueen is the finest of the large yellow varieties. The small fruited tomatoes have of late years come greatly to the fore; for salads, decorative effects, and preserving they are very fine; the finest of these is Yellow Plum; others to be recommended are

Red Cherry, Peach, Pear and Red Plum.

An important crop is sweet corn; no vegetable will withstand severe drought and heat better if persistent culture is given the crop. It succeeds well in either hills or drills, probably in the latter the stalks will not blow over so much during the wet windy weather. The first sowing can be made in a warm piece of ground from April 15 to April 20; even if it is cut down by a late frost, the seed is easily sown again, and the loss is but trifling. The soil for sweet corn should be very rich for best results. Seeds can be sown at intervals of from eight to ten days until July 1, in the case of Stowell's Evergreen, and a few days later with Crosby. We have sown early varieties as late as July 15, and they have yielded an abundant supply of crops when frost held off late. In the way of early varieties, First Crop Sugar, Golden Bantam, Early Cory, and Peep-oday, are all good. In medium earlies we have Golden Dawn, an excellent yellow variety of fine flavor, and the always reliable Crosby; Porter's Excellent is another sort of excellent flavor; of late varieties, Stowell's Evergreen produces the largest cobs, and they

are very tender and sweet, but Country Gentleman, an irregular road variety, has a very delicate flavor.

Melons are not really a vegetable at all, but are served only as dessert fruit. They are, however, always catalogued with other vegetables, and may therefore be fairly spoken of here. During the past few years these, thanks to warm summers, have done extraordinarily well. Early batches can be started in pots or under small hand lights; a sheet of glass 16 by 24 inches over each hill will advance the crop quite a little; these glasses should be removed when rain falls, closed on cold nights, and filtered during the day. It is not a good plan to merely dig out a hole and place a shovelful or two of manure in each hole, giving nothing to the rest of the ground. The better plan is to broadcast, and plow or spade it in; this gives more vigorous plants. The finest flavored melon we have grown is Mrs. H. H. Rogers; other good sorts are Early Christiana, Honey Drop, and Emerald Gem. Rockyford is a great cropper, but we have found the skins rot rather badly just before ripening. The same applies to the big handsome Montreal Market.

Watermelons do well in warm summers; they should not be sown before June 1, and one or two plants only should be left to a hill. Cole's Early, Early Fordhook, Halbert Honey, and Kleckley Sweet, all do well in Massachusetts. Many persons cannot tell when watermelons are ripe. One sign is that at the little tendril where the stem of the fruit is attached to the vine, green fruits sound solid, ripe ones more hollow; the fruit will also "give" a little when firmly pressed,

if it is approaching ripeness.

Celery is a very important vegetable for fall and winter use. It will row well on level ground, and is thus planted by market growers; but in trenches, it makes its finest possible growth. Advantages of trench culture are that water is more easily applied, the plants are more readily hilled up, and the trenches give shade to the plants in hot weather. An abundance of well rotted manure should be placed in the trenches, as celery is a gross feeder. Golden Self Blanching is the finest early variety; Golden Rose is also good; White Plum is handsome, but of coarse texture. Good winter sorts are White Oueen, Giant Pascal, and Boston Market. The richest and most mellow soils should be used for celery culture. Early varieties may be bleached by means of boards, but the latter sorts must be hilled up by degrees, and housed in a cool, frostproof cellar before weather becomes too severe. It must also be aired on all favorable occasions. In lifting celery the earth should be moist; if not, apply some water after planting in the frame or cellar, and always take a nice ball of earth with each plant.

Onions are one of the most popular vegetables, and it is not difficult for the small grower to produce an all-the-year-round supply on a small piece of ground. The ground can hardly be made too rich; cow manure, with some soot added, is extra good as a fertilizer. The ground must be prepared, and the seed planted just as soon as possible after the frost has left the ground, and it has sufficiently dried out. For the earliest crop, plant small sets; we prefer the yellow ones, four inches apart in the rows. Very small sets are the best; those from one-third of an inch in diameter upwards will largely run to seed. We like to roll or tramp the onion ground before drawing the drills, which can be twelve inches apart, giving another tramp after covering the drills. Just as soon as the seed is sown, start cultivating, and keep at it constantly, until the tops are so much grown as to prevent it; also weed the rows carefully, especially a rain, when they will pull up most easily. It is no use planting this crop unless this matter of weeding is religiously attended to.

The so-called new onion culture is really a very old practice, and was in vogue in Great Britain half a centure or more ago. It consists of sowing seeds in flats or in a cold frame late in February, or early in March, and transplanting the seedlings in well-prepared ground about April 15. Very large bulbs are secured in this way, fine for exhibition, but they will not keep well; in fact, very few are sound after Christmas, and this mode of culture is not to be recommended where onions are wanted through the whole winter. For this method of culture, Ailsa Craig and Prize Taker are excellent. For sowing outdoors, Danvers Yellow is the onion par excellence; Prize Taker, Australian Brown, and Red Wethersfield are all good.

Asparagus is one of the most highly prized of vegetables, and comes in season very early. It does not take a very large bed to supply a small family, and if the ground is deeply trenched, well manured, and cared for, it is good for twenty years. Reading Giant, Columbian White, and Giant Argenteuil are splendid varieties. The plants should be in rows, three and a half feet apart, and eighteen inches between the plants. In planting, care must be taken to set the roots deeply, and cover only lightly at first, covering

in gradually as the plants grow.

Spinach of the round-leaved type is of course indispensable, and for summer use nothing beats the New Zealand variety. This must not be planted before May 10, however. With this latter vegetable, and a small row of Swiss chard, it is possible for a large family to secure a constant cut of greens for at least

four months in the year.

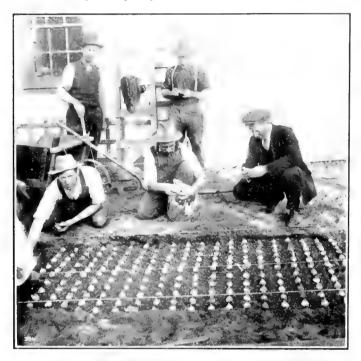
I have not mentioned salad plants; of these, lettuce is the most valuable, and by starting seed in the house or cold-frame, and making successional sowings outdoors from the end of March until the middle of August, heads may be cut from the early part of May until the end of November. For the earliest sowing, White Seeded Tennis Ball and Big Boston are leaders: for later sowings, May King, Deacon, Black Seeded Tennis Ball, and Sutton's Standwell are reliable. The Romaine or Cos Lettuce is popular with many; Trianon is a good self-bleaching sort. Endive is an excellent and handsome salad plant when well bleached; the plants want more severe thinning than lettuce, and to bleach them, the outer leaves should be gathered to a point and tied with raffia. Endive can be kept in the cellar, packed in dry sand, through a good part of the winter. Green Curled and Batavian are splendid sorts.

In miscellaneous vegetables, there are leeks, which should be sown only, and given rich culture, to secure big, handsome stalks; these keep in fine condition until May in a cold cellar. Musselburgh is a standard variety. A clump or two of chives takes up little space. For borderings, nothing is more beautiful than parsley; the plants should be thinned out six or eight inches apart. On well drained land, with a covering of leaves, this will survive our New England winters. Dobbie's selected and Champion Moss are beautiful curled types. White Velvet okra or gumbo is valuable for soups. It succeeds best in a hot summer, and the seed should not be sown before May 10 in this latitude. A few roots of indispensable rhubarb and one or two roots of horse radish should always be included. In the way of sweet or pot herbs, fennel, dill, sweet marjoram, sweet basil, sage, thyme, and summer savory are very useful.

#### HOLLAND'S FAMOUS HORTICULTURAL EX-PERT AT THE PANAMA-PACIFIC INTER-NATIONAL EXPOSITION.

A. Van Vliet, a famed horticulturist, who built the famed rose and tulip gardens of the Hague Peace Palace, in spite of the war cloud that hovers over his own country of gardens, has come to San Francisco to build, as a setting for the Netherlands Building, the most wonderful example of formal gardening that has ever been seen in America.

Mr. Van Vliet is enthusiastic about California. "It is better than Holland, the country of gardens, for the building of gardens. Here things grow without being asked," he quaintly says of local soil and climate.



AIRIE VAN VIIET, ON THE RIGHT, SUPERINTENDING THE PLANTING OF RARE BULBS IN THE NETHERLANDS GAR DENS AT THE PANAMAPACIFIC EXPOSITION

An out-of-doors man, enthusiastic about his art, which has carried him to remote places and taught him the garden lore of two lands, England and Holland, Van Vliet is a typical example of continental specialized learning. There is nothing about gardens, ancient and modern, or their planning, that the blond Hollander does not know.

To San Francisco, with its ideal climate, he is bringing the finest examples of his skill. "My country," says Van Vliet, "is the country of gardens. I was born in the province of Boskopp, and grew up among the rose gardens that cover that province. That is why I bécame a builder of gardens.

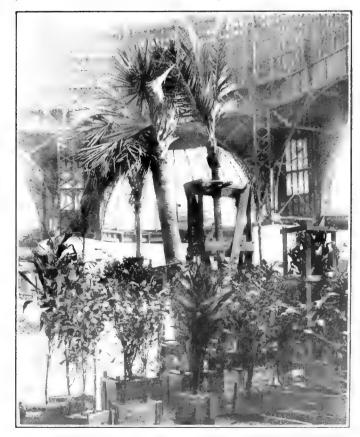
"There is not one bulb, one flowering shrub, one little blade of grass that is to grow up in our little section of the Panama-Pacific International Exposition, that did not come from my country—the Netherlands. Already I have brought out bulbs costing \$10,000. My flowering shrubs and trees are about to be shipped.'

The Cuban horticultural exhibit has also arrived at the Panama-Pacific Exposition, San Francisco, Cal. The exhibit includes mammoth palms, tree ferns, foliage plants, and many horticultural novelties. The place of honor, immediately beneath the great glass dome of Horticultural Hall, 1821/2 feet in height and 152½ feet in diameter, has been assigned this remark-



THREE FERNS FROM CUBA IN THE PALACE OF HORTICULTURE AT THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION.

able exhibit which includes tropical fruit, shrubbery, palms and a varied collection of plants.



TRINCESS PALMS TO THE LOT THE HELDER AND COLLEGE AS THE SPECIMENS OF THE CLASS DESPENSATION OF THE FOLLOW. OF HORBSTILLER STAIR TAX MAP

# Work for the Month of February

By Henry Gibson

February is an excellent time to do any necessary overhauling among such foliage plants as palms, crotons, dracaenas, pandanus, marantas, etc. The majority of these require an annual repotting or top dressing. While a good growing medium is indispensable to success with these plants, yet it does not follow that the compost used must be of a very rich nature. In fact, we believe that a rich potting material detracts from the beauty of the crotons, pandanuses and other highly colored foliage plants, insomuch as it sets up a rapid growth and the plants take on a green color that is far from encouraging to those who admire a well colored foliage plant. June loam, leafmold and sand with the addition of a little soot and charcoal is a mixture that suits a good many of these plants.

In potting, small shift should be the rule. When oven potted the soil is apt to become waterlogged and sour before the roots have time to penetrate it and success under such conditions is impossible. Such plants as are not in need of repotting may, after having some of the old soil cleaned away, be top dressed with some of the potting material. For palms, and especially for large plants, the soil would be better with the addition of some old cow manure and coarse bone. Pot firmly and water with caution until the roots begin to permeate the new compost. As the work of repotting proceeds it would be well to look over each plant to see if it is free from scale, mealy bug. Don't put dirty plants back in the houses. A little insecticide will loosen up the scale and a Stott nozzle on the end of a good hose is the most effective method of cleaning off mealy bug that we know of.

The present month is a good time to increase one's stock of crotons, dracaenas, pandanus, etc. A close propagating case with a brisk bottom heat is necessary and the cuttings should be freely syringed on bright days. Sometimes it is found that pandanuses do not furnish much material for propagating purposes, and when this does occur it will be found a great encouragement to the development of side growth if a few of the center leaves of the old plants are pulled out, thus checking its growth. It may be necessary to give some shading to the more highly colored leaved plants in order to prevent scorching. In the event of this being necessary, make it light, for we are sure to have some dark weather yet.

#### Calanthes.

These beautiful terrestrial orchids are now nearing the end of their flowering season and as their success another season depends greatly on the treatment they receive during the next two or three months, it will be well not to overlook them. After the flowers are cut, the bulbs should be rested for seven or eight weeks in a dry place where the temperature does not go below fifty degrees. They should then be shaken out of their flowering pots and stood close together on a mixture of sand and leafmold in shallow boxes, where a temperature of from sixty-five to seventy degrees at night can be maintained. By keeping the material they are resting on moist and sprinkling lightly overhead occasionally, the bulbs will come into active growth. When the young roots are fairly active again potting should be done at once, or many of the young rootlets will be broken.

#### Campanulas.

Mention was made in our November notes of the usefulness of these subjects for conservatory decoration during spring. Now is the time to bring them from the frame where they have been wintered into a cool greenhouse. Campanulas need to be well rooted in their pots and no attempt should be made to force them. If put in a high temperature they will not come a bit faster and the first thing one knows they are damping off. They require a temperature of forty-eight degrees now and three or four weeks hence they will stand a little more, and when once they begin to shove their flower spikes above the foliage one can expect to see flowers inside of a month.

#### VIOLETS,

For those who propagate their own stock, the violets are now showing some fine material for the sand. Take none but the sturdiest and healthiest cuttings and put them in the propagating bench in the carnation house. Give them some shade, any necessary watering and moisture and they will soon root. When this is done they can be placed into shallow boxes using two parts loam, two parts leafmold, one part rotted manure and the same of sand. Plenty of ventilation is necessary to keep them sturdy. Care should be exercised when watering to avoid getting them in a wet sour condition. Give an overhead spraying on fine days and keep the night temperature as near fortyfive degrees as possible. The old plants should have plenty of air on all favorable days. No set rule can be laid down. During the mild spells it is always good practice to lower the fires lest the temperature runs up too high, which would not only detract from the quality of the blooms, but also lowers the vitality of the plants to a marked degree.

A sharp watch should be kept for both green and black fly, which soon make short work of violets if allowed to become established. So don't overlook

fumigating.

#### CHRYSANTHEMUMS.

With the advance of the new year the growers of 'mums for exhibition purposes usually turn their thoughts to propagating and no doubt ere these notes appear plenty of stock will be rooted. For slow growing varieties and where extra large bush plants are wanted this is alright, yet we are of the opinion that for general exhibition purposes the present month and on through March is the proper time for rooting cuttings. On the other hand, however, it would not be doing any particular variety justice to propagate it too late and condemn it as worthless when by earlier propagation it might have had a chance to show its

All stock plants should have a well lighted bench in a house where the temperature is around fifty at night. If the stock has been wintered in a frost-proof frame, remove the covering from them and give air on all favorable occasions, so as to avoid weak spindly growth. Sturdy short-jointed cuttings are what one wants to put in the sand.

With a propagating bench facing north the cuttings when once watered in will need but little other attention until they are rooted. As soon as they have made roots half an inch long, they should be potted. Many

(Continued on page 20.)

#### SOME 1915 CHRYSANTHEMUM NOVELTIES.

The accompanying illustrations are a few of the chrysanthemum novelties offered this year. Some are claimed quite distinct and superior in color and season to any of the existing seats.

to any of the existing sorts.

Mrs. William H. Walker, introduced by Scott Bros., is a seedling from "Francis Joliffe" and "Hon. Mrs. Lopes"; in size fully equal to either of its parents. Its color is a clear lemon yellow with long petals curling at the tips. It is expected to prove a fine variety for exhibition purposes.

Joan Stratton, a very large flower, reflex in form, is a beautiful shade of pearl pink with a white ground.

It is also regarded as an excellent exhibition flower. The florets are long and broad and of good substance.

Miss Lelia Mary Bennett is described as a very distinct and telling variety of a rich crimson color, with fine stems and grand foliage. It is a full flower and is claimed to be the largest of its color now offered.

Miss Emma Roope is regarded as a fine specimen either as an exhibition sort or to be used as a specimen or decorative variety. It is a mauve-pink with fine foliage and erect stems, with florets evenly reflexing and of good substance.



MRS WM, H WALKER.

Gorgeous—one of last year's varieties—a golden yellow Japanese, is still a favorite. Its foliage is short and leathery and it has proven an excellent grower for cutting purposes. The flowers are large and of fine form.

#### BEGONIA GLOIRE DE LORRAINE

The begonia Gloire de Lorraine is one of the best pot plants that can be grown for furnishing the greenhouse with bloom during the winter months. It will last for many weeks with careful watering. After it has finished flowering, by picking off the old blooms and putting the plants in a temperature of 65 degrees, they will throw up growth from the base, which, if taken off and made into cuttings, will root freely and make plants for the following season. They will make better plants than you will obtain by growing the old ones on for another season, writes F. E. Smythe in *The Canadian Florist*.

The soil required for cuttings is two-thirds sand to one of fine loam. Fill two inch pots with the mixture, putting five or six of the cuttings around the edge of the pot. Give them a good watering, making sure that the soil has

been made wet right through the pot.

Place the pots in a propagating frame. If it has bottom heat the cuttings will root sooner. The box can be placed in a house with a temperature of 65 degrees. For bottom heat stand the box on bricks over the pipes. The glass will collect moisture, which will make the cuttings damp off. To prevent this the glass must be turned morning and night, and also shaded during sunny days by placing newspapers over it.

After two or three weeks carefully knock the soil out of the pots to see if they are rooted. Test in this way until you find that they have rooted, when the glass may be propped up a little. After this treatment for a few days the glass may be removed, thus hardening the cuttings to the temperature of the house. When properly hardened they can be potted off separately into three inch pots. Care should be taken when knocking them out of the cutting pots not to damage the roots.

The soil now required consists of two parts leaf mould to one part loam and one part peat, mixed with plenty of sand. If the loam is of a heavy nature a little fine charcoal mixed will help to keep it open. Being in only three inch pots the soil will want to be on the fine side. It must not be made firm, as the lighter this plant is potted

this time the better it is.

The pots may now be placed in a house with a temperature of from 65 to 70 degrees. The house will require to be shaded, because if the sun shines on the plants the foliage will become very light instead of a nice dark green.









MISS EMMA ROOPE.

GORGEOUS.

MISS LILLY MARY HANDLEY.

When the plants are pot-bound repot into five and six inch pots, according to the size of the plants. Make this their final potting. Use soil mixed as before, but a little coarser, and also pot a little firmer. Staking and tying should be attended to so that the plant will be of good shape.

When the plants are well established in their flowering pots a little artificial manure will be a great help to them. Never use it too strong, as the roots of the Lorraine are very tender and this would burn them, causing great harm to the plants. Syringing will be needed on bright days

as a moist atmosphere is required.

All bloom must be kept picked off till the plants have made their growth or until about a month before the plants are needed. The plants may then be hardened off so as to be used in a cool greenhouse or for decorating purposes.

#### WORK FOR MONTH OF FEBRUARY.

(Continued from page 18.)

cuttings are spoiled by being left in the sand too long, making, as they do, a weak spindly growth which has a tendency to turn woody at an early stage. Moreover, the roots spread into the sand and become interlaced with others, with the result that many are broken when they are removed.

If one has no propagating house and one has to resort to a part of a bench in a house where a miscellaneous collection of plants are grown, care should be taken to shade from the sun and avoid drafts or the cuttings will wilt and lose their vitality.

#### LEMON VERBENAS.

Old plants of lemon verbenas that have been resting should be given a little more water and be placed into more heat. Give them a place where the temperature is near that of the rose house. Treated thus they will soon throw out numerous young growths which make fine material for making cuttings of. Placed in a moderately warm propagating bed they will soon root if kept moist and shaded. Potted into 2½-inch pots in a rich compost and moved into four-inch pots as need for it arises, they will make fine stock for bedding out.

#### PRACTICAL TREE SURGERY.

(Continued from page 13.)

block of cement is then smoothed with the flat trowel so that it will slant slightly downward from back to front, in order to facilitate drainage. Over the top of this cement block a double or single sheet of tarred roofing (or thinner) paper is placed after it has been cut so as to fit the cavity. On top of this, another block of cement is built as soon as the first block is sufficiently hard to stand the weight and tamping without forcing any of it out at the bottom of the cavity. If the interior of the cavity extends well above the level of the external opening, it may occasionally be necessary to bore or cut a downward slanting hole from the outside to the top of the interior cavity, through which a watery mixture of cement may be poured to fill the upper part of the cavity and the hole. The main opening of the cavity must be completely closed with the stiffer cement before this watery mixture is introduced. When a block of the cement has partially hardened, it will be necessary to carefully smooth the outer surface or cut it down with the flat trowel to the level of the cambium, taking great care that the latter is not injured in the operation. If the cement is allowed to become too hard to trim with the trowel, it can still, with more or less difficulty, be cut back to the cambium line with a cold chisel and hammer. It is a rule with most tree surgeons to trim back the outer surface of the cement to an eighth of an inch or more below the cambium and then use a layer of stronger cement (one part of cement to one or two of sand) to raise it to the level of the cambium, after the filling has partially hardened.

The thinner mixtures of cement will set more firmly. If any mixtures thinner than the one already mentioned are used to fill a cavity, some sort of cloth or wire dam will have to be used to hold the cement in place until it is hard. For this purpose strips of burlap wrapped tightly around the tree so as to cover the lower part of the opening may be sufficient if the mixture is not very thin; otherwise, a more closely woven fabric, such as canvas or carpet, may be used.

After the cement filling has become thoroughly dry, the outer face may be painted with coal tar or paint, especially around the edges where cracks are likely to appear. This should not be done for several weeks after

the cement has been put into the cavity.

Sheet tin, zinc, and iron have been quite extensively used to cover cavities. When properly applied, these coverings often serve to keep out disease and insects for a long time. Oftentimes they are improperly applied, or the cavity is not properly treated. Under such conditions these tin-covered cavities are a greater menace to the tree than open cavities. In preparing a cavity for a sheet-metal covering, all the decayed, diseased and insecteaten wood is removed in the manner indicated under cement fillings, with two exceptions: There is no need of undercutting the cavity and there should be a narrow half-inch ledge of wood around the edge of the cavity to which the margin of the sheet metal can be tacked. The excavated cavity must be thoroughly sterilized and waterproofed. The sheet metal should be trimmed so that its edges will exactly fit along the edges of the bark. The metal can then be placed on a block of wood and holes an inch or less apart punched or drilled along its margin, through which long, slender, flat-headed brads may be driven into the ledge of wood around the cavity. The edges of the cavity and the inner side of the metal should now be freshly tarred. The metal is then put in place and nailed with a light hammer, allowing the center of the metal to curve outward, so as to conform to the general shape of the trunk.

In a tree which is not considered of sufficient value to warrant cleaning and filling the decayed areas or covering them with tin, these may be excavated, sterilized, and waterproofed. In this condition they can often be safely left for years if the waterproof covering is renewed as

soon as cracks or blisters appear.

As a general rule, tree surgery can be safely undertaken at almost any time of the year when the sap is not running too actively and the weather is not cold enough to freeze the cement. In most trees the sap will interfere with the work only from the time the buds begin to expand in the spring until the leaves are full grown. Cement work will be ruined if it is frozen before it is hard. It is not likely to be injured by frost after it has been drying for a week.

#### CALIFORNIA'S FINE ROADS.

It is reported that Sacramento County, Cal., will soon vote on a bond issue of \$2,425,000, to construct 271 miles of road and 54 bridges. The entire mileage is to be hard surface and will comprise gravel, macadam, a combination of gravel and macadam, and concrete with asphaltic wearing surface. California is rapidly becoming famous for its splendid roads, and when the many excellent county systems, supplementing the \$18,000,000 State system, are completed, may well invite comparison with the most noted road systems of Europe.

#### HERE, THERE AND EVERYWHERE

#### DISTORTING THE FACTS.

No matter how hard the scientist tries to disseminate accurate information, he finds some irresponsible just ahead of him with a story of plants or animals so wonderful that a public, educated via the moving picture route, much prefers it to any soler statement of fact. It is easy for the reporter on the hunt for a "human interest" story to contort the facts until they have little semblance to the truth in his efforts to entertain the public. The advertiser of a set of natural history books that are at present being introduced to the public asks in one of his circulars, "Do you know that the dew plant kills and eats every fly that alights on its petals by ensnaring with a sticky substance?" We confess that this is new to us. We have seen the sun-dew but never one that caught flies with its petals. In another place this same individual informs us that his books will tell us why an ant's head may often be seen walking by itself without a body. Since the ant's legs are attached to its thorax and not to its head we hope we may never encounter this remarkable sight. We know of several people who would never seek for the explanation of such a phenomenon in a book. It would be the Keeley Cure for theirs. Much as we value knowledge, we incline to agree with Josh Billings that "It is a good deal better to know less, than to know so much that ain't so."-Exchange

#### STARTING SMALL AND DELICATE SEEDS.

By far the simplest and most successful way to start very small seeds I think is the following: Fill a porous pot of suitable size with garden soil made fine and free from lumps. By jarring the pot settle the soil moderately. Do not press the soil. Leave the surface granular. Onto this surface scatter the small seeds. Now, jarring the pot lightly a time or two will settle most of the seeds between the soil grains, though most of the seeds will remain in sight.

Now place the pot in a vessel containing an inch or two of water and place all in a sunny and warm situation. The surface soil will soon become moist and will remain so as long as sufficient water is kept at the base of the pot. If the seeds be good one can watch them strike root and develop into plants of suitable size for handling. They they can be pulled out of the loose earth and placed in suitable positions for further development. Exchange.

#### THE FUEL VALUE OF WOOD.

The fuel value of two pounds of wood is, roughly, equivalent to that of one pound of coal. This is given as the result of certain calculations now being made in the forest service laboratory, U. S. Department of Agriculture, which show also about how many cords of certain kinds of wood are required to obtain an amount of heat equal to that in a ton of coal.

Certain kinds of wood, such as hickory, oak, beech, birch, hard maple, ash, elm, locust, longleaf pine and cherry, have fairly high heat values, and only one cord of seasoned wood of these species is required to equal one ton of good coal.

It takes a cord and a half of shortleaf pine, hemlo k, red gum, Douglas fir, sycamore and soft maple to equal a ton of coal, and two cords of cedar, redwood, poplar, catalpa, Norway pine, cypress, basswood, spruce and white pine.

Equal weights of dry, non-resinous woods, however, are said to have practically the same heat value regardless of species, and as a consequence it can be stated as a general proposition that the heavier the wood the more heat to the cord. Weight for weight, however, there is very little difference between various species; the average heat for all that have been calculated is 4,600 calories, or heat units, per kilogram. A kilogram of resin will develop 9,400 heat units, or about twice the average for wood. As a consequence, resinous woods have a greater heat value per pound than non-resinous woods, and this increase I value varies, of course, with the resin content.

The available heat value of a cord of wood depends on many different factors. It has a relation not only to the amount of resin it contains but the amount of moisture present. Furthermore, cords vary as to the amount of solid wood they contain, even when they are of the standard dimension and occupy 128 cubic feet of space. A certain proportion of this space is made up of air spaces between the sticks, and this air space may be considerable in a cord made of twisted, crooked and knotty sticks. Out of the 128 cubic feet a fair average of solid wood is about 80 cubic feet.

#### SAYS PLANTS EXHIBIT SYMPTOMS OF DEATH.

That plants, like animals, respond to anaesthetics, drugs and other stimulants, and exhibit all the symptoms of death agonics, was demonstrated to a large audience of Washington scientists in a lecture at the Cosmos Club recently by Prof. J. Chunder Bose.

a native of Calcutta, India, one of the world's authorities in the field of electrical physiology.

Prof. Bose, who has had conferred upon him by the British Government the high distinctions of the decoration of the Companionships of the Star of India and of the Indian Empire, speaks English fluently, and for more than an hour entertained his audience with an account of his principal discoveries of plant life phenomena. These discoveries show that there is not a single physiological phenomenon in the animal which is not duplicated in the plant.

The Bengalese scientist conducted an experiment with an apparatus invented by him which enables the plant to show on the screen that it feels or responds to all kinds of mechanical and chemical injuries much as animals do, and that at the moment of death convulsive movements take place.

By pinching a cauliflower plant with this apparatus the sensation experienced by the plant was thrown on the screen in the form of a light wave.

#### LAST FALL'S EXPORTATION OF HOLLAND BULBS.

So much has been said during the fall of 1914 in regards to few if any bulbs having been exported from Holland to the warring nations, and buyers of bulbs having been given to understand that the great influx of bulbs from Holland into this country was solely due to some of large Holland exporters having had their fine bulbs packed for their regular English and German trade, and not being able to export them to Germany and England. being compelled to send them to America, making buyers believe that the bulbs that were being sold at such low prices represented the cream of the Holland stock, which in other years was shipped to England, Germany and Russia, it may be quite apropos to here give correct statistics as to the actual exports of bulbs during the month of September, 1914, from Holland, in comparison to the total actual exports in the corresponding month of 1913. The quantities represent kilograms (one kg. is about 2.21 lbs.).

	September.	September.
Export of flower bulbs to:	1913.	1914.
U. S. America and Canada	999,500	-1.599.100
Great Britiin and Ireland	3,538,400	2,829,300
Sweden .	178,800	-1.076.001
Denmark .	158,400	1.56,200
Notway	51,400	90.609
Germany and Austria	1,443,300	2,306,990
Belgium and France	439,100	48,900
Russia	105,700	None
Other countries .	55,100	33,100

The increase of the export to Sweden is, of course, due to Russia importing via that country; the heavier export to America walargely due to the bulbs being of extraordinary quality last year, and the bulbs were consequently very much heavier. It was also due to heavy export for auction sales, a certain element in the bulb section growing almost exclusively for auction business in London and Berlin, and, finding these markets practically closed, or at least rather risky, dumping their auction products on the American market. The exportation of actually sold bulbs to the warring countries during September, 1914, must therefore be considered to have been entirely normal.

#### THE POPLAR TREES' SOLILOQUY.

By Mabel Hemming.

"Two striplings," when you planted us beside the garden gate. And we are very proud to think we've grown so tall and straight, We tower above the houses, and the other trees around. It looks a long way to us from our top leaves to the ground.

Within the garden where we've grown associations past—Bind us with many links so strong all throughout life they'll last, For time must many changes bring and friends will come and go. But still beside the garden gate your poplar trees will grow.

We'd rather give a better shade, but contented we must be. To grow up tall and straight instead, just like a "poplar tree" And fill the niche that nature made just as for us she wills Mite of the "Mighty Atom" which destiny fulfills.

We love to watch the little boys who play around at ball. To us the happy times they have, are happiest of all. And when old time has run its course and they've to manhood group.

"The poplars father planted" will be treasures all their own.

Though storms may twist and turn our boughs, and bend us half way down.

We'll still rise up and hold our own, in spite of nature's frown. And here's the lesson we might teach, in everything "he straight." Just like the "poplar trees" that grow beside the garden gate.

From Vational Varietanda.

# Brookside Gardens, Great Barrington, Mass.

One of the most attractive estates among the many that nestle about the foothills of the Berkshire Mountains is "Brookside Gardens," the home of Mr. and Mrs. Wm. H. Walker, located at Great Barrington, Wass

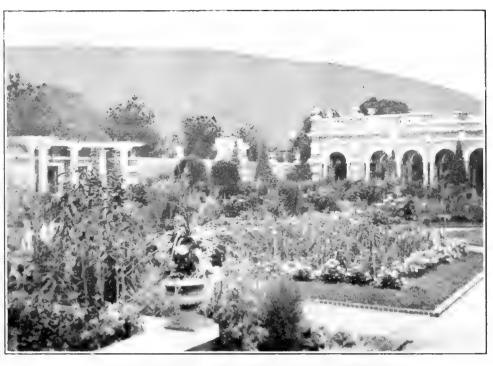
Thomas Page, the gardener in charge, scarcely

requires an introduction to the readers of The Chronicle. He is usually to be found among those of the craft who attend the various club and society meetings for the up-building of the gardening profession, and he is a staunch supporter of the national society. What he does is always done well. This was shown when he went to Indianapolis last fall and lifted the Chrysanthemum Society's silver cup with twelve blooms of that old chrysanthemum, "Mrs. J. C. Neil." There are unquestionably many better 'mums than Mrs. Neil grown today, and so his accomplishment demonstrates that there is something more than mere rule of thumb methods to gardening. Mr. Page is fully as capable in the management of this beautiful estate as in the cultivation of greenhouse stock.

Mr. and Mrs. Walker are both enthusiastic horticultu-

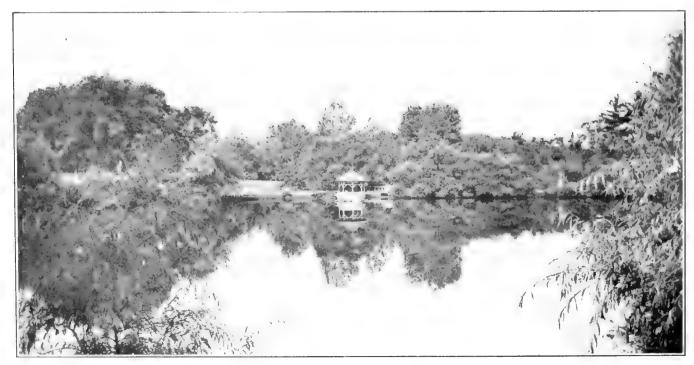
rists, and take a deep interest in the details of the planting and arrangement of "Brookside," which is a natural garden spot, with many lakes, streams and tumbling cascades. Considerable money has been spent in developing many of these natural features. Large quantities of native and improved varieties of trees, shrubs and perennials have been planted with telling effect; so that today "Brookside" stands out as one of the finest of Berkshire homes.

The "Wall" or "Sunken Garden," illustrated in these



THE SUNKEN GARDEN, AN ALERACTION OF THE ESTATE

columns is one of the chief attractions of the estate. It stands in a secluded corner of the place, and at one end is the beautiful loggia and the main entrance to the tea room, with its solid pillars of Italian marble. From



ONE OF THE NATURAL LAKES IN BROOKSIDE GARDENS.

the rear entrance of the tea room you enter another garden where sweet peas and annual flowers are principally grown. In this garden one of the greenhouse ranges is located, and an extensive natural lake borders it.

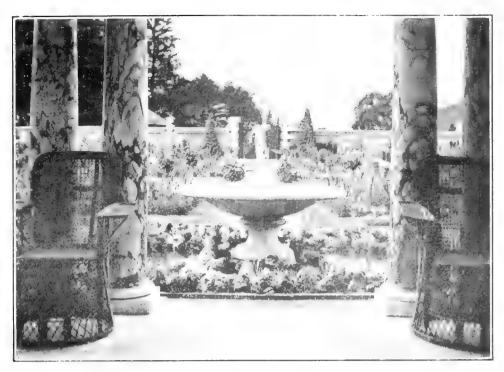
The wall surrounding the sunken garden is ten feet high. In one of the views Mr. Page is seen examining a delphinium, the height of which is easy to reckon. Note also the healthy appearance of astilbe, lupinus, alyssum, etc.

Another feature worth noting at "Brookside" is the color scheme of the perennial gardens, which is blocked off in harmonizing effect, each block containing just one color. The varieties and species are selected to give a continuation of bloom from early spring to late fall.

Much of the planting and rearrangement of this beautiful place has been done since Mr. Page went to "Brookside."

He has just completed a large vegetable and fruit garden, with a house for the growing of winter vegetables.

The greenhouses are commodious and well filled

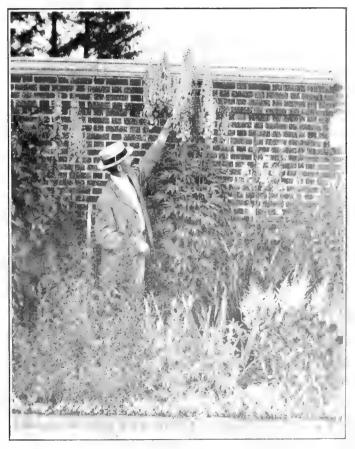


VIIIW OF THE GARDLA TROM INTRANCE TO BUT I A ROOM

with up to date stock; an extensive range of fruit houses is now under contemplation.

"Brookside" is an highly instructive spot and well worthy of a visit at all seasons. There is always something to attract you.





THE

### GARDENERS' CHRONICLE

OF AMERICA.

Published by

### THE CHRONICLE PRESS. Inc.

Office of Publication

286 FIFTH AVE., NEW YORK. MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50 :: :: Foreign, \$2.0 Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

Published on the 15th of each month. Advertising forms close on the 10th preceding publication.

For advertising rates apply to Robert F. MacClelland, 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### ASSOCIATION OF GARDENERS NATIONAL

President J. W. EVERITT, Glen Cove, N. Y. Vice-President.

Treasurer JAMES STUART, Mamaroneck, N. Y.

W. S. RENNIE, Ross, Cal. Secretary, MARTIN C. EBEL, Madison, N. J.

#### TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa., Wm. Tinner, Mendham, N. J.; Geo. W. Hess, Washington, D. C.; John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.
To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.
To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn. Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President, GUSTAVE H. AMRHYN, New Haven, Conn.

Secretary-Treasurer, ROLAND W. COTTERH.L., Seattle, Wash.

JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

Vice-Presidents, CARL W. FOHN, JOHN HENDERSON, Colorado Springs, Colo. Montreal, Canada. CHARLES HAIBLE, J. H. PROST, Newburgh, N. Y. Chicago, Ill.

Vol. XIX.

JANUARY, 1915.

No. 9.

#### CHARLES McTAGGART.

Charles McTaggart, widely known in gardening circles. is no more. His untimely demise occurred on Sunday noon, January 10, as he was approaching the railroad station in his home town, Kearny, N. J., to board a train for New York. Walking on the westbound track, the warning of the approach of the eastbound train on the track on which he was walking, owing to repairs on the eastbound track, came too late. He was struck and when picked up life in the body was extinct.

Charles McTaggart numbered a host of friends among the gardeners, especially in the eastern states. The accompanying photograph depicts him in characteristic attire, and as he will be best remembered by his friends. Born in Gatehouse, Kirkendbrightshire, Scotland, forty-

five years ago, a grandson of the late James McTaggart, Provost of Gatehouse, he came to this country about twenty years ago. For the past seven years he has been connected with the seed firm of W. E. Marshall & Co., New York, representing the firm on the road most of that time. He is survived by his mother, Mrs. James McTaggart, and the death of her only remaining son leaves her without kin in the world. The firm, whom he has faithfully served the past years, in appreciation of those services, will undertake to lighten the sorrow and burden of the bereaved mother in her declining years.

The funeral services were held at his late home in Kearny, N. J., on Wednesday afternoon, January 13, and was attended by many friends both in and outside of the gardening profession. Among those who followed the remains to its last resting place in Arlington Cemetery, Arlington, N. J., were: John Brunger, D. Adams, James



THE LATE CHARLES MCTAGGART.

Aitchison, William Parclay, Robert Berry, James Bell, Edward Benson, William Bunny, J. Alexander, M. C. Ebel, A. F. Faulkner, John Garvan, John Hayes, A. Herz, Thomas Locke, Alexander McKenzie, Ewen McKenzie, Malcolm MacRorie, John McQueen, Joseph Marshall, George Meadows, George Mustoe, William Metzdorf, Lester E. Ortiz, Robert Petrie, Owen G. Ownen, P. W. Popp, James Stuart, Martin Tillotson, Alexander Thompson, George Thompson, George Wilson, Ant. Wild, Andrew Wilson, S. H. Whitefield, William Keyser, Andrew Kennedy.

The services were conducted by Rev. Robert T. Graham. The pall bearers were: A. E. Wheeler, Peter Duff, John Brown, Henry Rute, James Walker, Thomas Adams.

Charles McTaggart rests in peace. Long will he live in the memory of his friends.

## NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

#### THE PRESIDENT'S MESSAGE.

In greeting my fellow members, I want, first of all, to express my appreciation of the high honor that has been conferred on me by my election as president of the National Association of Gardeners. I shall try to merit this confidence by endeavoring to make my administration as successful as have been those of my predecessors in office.

On the growth and progress of our association, it is not necessary to dwell, as its splendid work of the past few years is a matter of record known to all who take an interest in the profession of gardening. Our responsibility towards the profession, which our organization represents, has not been lessened, however, by our progress, and it will require the untiring efforts of those entrusted to perform the various duties which an association such as ours imposes. Your officers and committees will succeed in their work if they have the active support of every member, to which they are entitled.

Our organization is a national one and its activities should not be limited to any one territory, but should spread from coast to coast. The co-operative movement. between the national association and the local horticultural societies, to bring them into closer relation, can be made the instrument for spreading the influence of the national association broadcast in this country and it should receive the serious consideration of every local horticultural society, or club, which includes the professional gardener in its membership roll.

Our summer meeting, which is to be held in San Francisco next summer, offers the opportunity to bring the association closer to the doors of our Western brothers, and those of us in the East who can do so, should avail ourselves of this opportunity to make the trip across the continent to meet our fellow gardeners of the West. I am looking forward to have that pleasure next August.

For the last three years the energies of the N. A. G. have been directed along constructive lines. Our foundation is now well established and we must turn to an instructive course. Our Co-operative Committee has not been idle, and this coming year should see great progress in a new direction for the benefit of the gardening profession.

There is still opportunity for increased membership. and I am not going to limit the 1915 Membership Committee. I will appoint every member of the association one of the committee and each one should obligate himself to enroll at least one new member within the year. You can do it and it will add much to the strength of our organization.

Let us all unite to make this year the most active within the history of the N. A. G.

JOHN W. EVERITT.

#### THE PRESIDENT'S APPOINTMENTS.

The following appointments are announced by President John W. Everitt of the National Association of Gardeners for the year 1915: To serve as directors for three years, until January 1, 1918: William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Edward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Folm, Colorado Springs, Colo.; Peter Johnsen, Dallas, Texas; Thomas Proctor, Lenox, Mass.

Committee on Essays and Horticultural Instruction: William H. Waite, Yonkers, N. Y.: Edwin Jenkins, Lenox, Mass.; Arthur

Smith, Reading, Pa.; William Craig, Brookline, Mass.; Theodore Wirth, Minneapolis, Minn.
Committee on Meritorious Exhibits: William Kleinheinz, Ogontz, Pa.; Alexander Mackenzie, Highland Falls, N. Y.; William Hertrick, San Gabriel, Cal.: Albin Martini, Lake Geneva, Wis.: James Bell, New York, N. Y.

National Co-operative Committee: John W. Everitt, Glen Cove, N. Y.; William S. Rennie, Ross, Cal.; James Stuart, Mamaroneck, N. Y.: Martin C. El el, Madison, N. J.

#### THE PRESIDENT'S PRIZE.

President Everitt announces that he offers one hundred dollars in gold in competition for the best written essays on horticultural subjects. There are to be two classes, the head gardener's class and the assistant gardener's class, the prizes to be competed for within the present year. The details of the competition are to be arranged by the Essay Committee and are to be announced at an early date. President Everitt makes this offer with an aim to arouse greater interest on the part of the professional gardeners in horticultural topics and to induce them to become more active in writing on horticultural subjects. The Essay Committee has taken up the work of formulating the plans for competition, and it hopes to complete the details in time to be announced in the February issue of the CHRONICLE.

#### COMPETING FOR THE ASSOCIATION'S MEDAL.

In come tion with the able committee appointed to pass on meritorious exhibits, President Everitt requests that the resolu-

tions passed by the Executive Board of the association in January, 1913, be again published at this time. The resolutions follow:
"It is regularly resolved that the association award a medal for any new variety of flower, plant, vegetable or fruit. originated by a gardener, a member of the National Association of Gardeners, and to be passed on as meritorious by a committee of judges, such a committee to be appointed annually by the President.

The attention of the gardeners is directed to this resolution and the secretary should be advised on any production qualified to compete for the association's medal.

#### NATIONAL CO-OPERATIVE COMMITTEE.

A correspondence course for classes in landscaping, forestry. greenhouse management and agriculture is planned by the Na tional Co-operative Committee which expects to make an announcement shortly of the completion of its arrangements. course is intended for members of the association to obtain scientific knowledge in connection with their practical experience and who have not the opportunity to avail themselves of a college

The committee requests that all local societies which have taken favorable action on the co-operative plan submitted to them between the national association and local societies, but which have not yet officially advised the secretary of the N. A. G. of their action, do so at once.

The committee also asks the local co-operative committees of the societies which have announced their intentions of participating in this co-operative movement, to communicate any suggestions they may have to submit from their local societies in relation to the co-operative plan.

#### NEW MEMBERS.

The following new members have been added to our roll during the past mouth: Prof. E. A. White, Ithaca, N. Y.; L. W. C. Tuthill, New York, N. Y.; C. Zandbergen, Valkenburg, near Leiden. Holland; Samuel Simmonds, Washington, D. C.; William J. Whan. Groton, Conn.; L. Bisset, Lenox, Mass.; Charles H. Lundgren. Ross. ('al.: Julius Erdmann, St. Louis, Mo.; George Wood. Rhinecliff, N. Y.; Thomas Hatton, Yonkers, N. Y.; Louis Ottmann. Mamaroneck, N. Y. Wm. Metzdorf, Oceanic, N. J.; J. H. Brunger, Irvington, N. Y.; James McDougal, Glen Cove, N. Y.; Sigurd F. Henderson, New Haven, Conn.; John McLane, Cedarhurst, N. Y.

SUMMER MEETING IN SAN FRANCISCO.

Several inquiries have come to hand regarding the summer meeting of the N. A. G. in San Francisco, Cal., in August next and what, if any, arrangements will be made for those going from the East. It has been suggested that an effort be made to get up a party to travel together. This suggestion will receive due consideration and will be reported on more fully in the next issue of this publication.

The Editor Gardeners' Chronicle:

Dear Sir Some of our members who attended the Philadelphia convention may have heard rumors of a movement having for its object the amalgamation of our association with another national society connected with horticulture. Personally, I did not come across one professional gardener in favor of it, the idea having apparently arisen in the minds of some outside our profession. While prepared to give those whom I heard in the course of conversation express their opinion that it would be a wise proceeding on our part, all credit for sincerity of motives, for being in every way favorably disposed towards our association and possessed of the kindliest feelings to ourselves, I know there are others not so disnosed.

In connection with our association we must remember that un to three or four years ago it was in a more or less moribund condition. Today, while we have only just got started, the state of things is

very different.

The position which our association now occupies—although it is nothing to what it will be-has only been achieved by the fact that we have been fortunate enough to secure a man, willing and able to devote a large amount of his time and money to advancing our interests and fighting our battles, to act as our secretary, who has done what no individual amongst ourselves could even have

Many of us are aware that there are men in the horticultural world who consider that our association has no right to exist and they have opposed it at every opportunity, not openly, honestly and above board, but in an insiduous and underhand manner. Upon several occasions our secretary has had to make strenuous efforts and put up a strong fight to obtain proper recognition for our association, which has resulted in victories all along the line and from which our association has come into a stronger position than before.

Having been defeated in the efforts used to crush our association,

a new method of strategy is being adopted.

In some quarters a movement is being engineered by those in opposition to our association to bring influence to bear upon our members to force us into amalgamation. Their reason for doing so is because they are fully aware that if amalgamation were to become an accomplished fact our association would at once entirely lose its identity; become an absolute nonentity in the horticultural world; practically cease to exist and all the work done during the past few years to place it upon a sound foundation would be entirely

Laying the foundation is invariably the most difficult part in building up an association, but as this can now be said to be accomplished, our future growth will not only be retarded by entangling ouselves with other associations, but it would be stopped

altoaether.

We must not swallow the specious and, upon the surface, plausible, arguments which some are advancing in favor of amalgama tion, but make up our minds once and for all to the fact that we have everything to lose and nothing whatever to gain by adopting it.

Co-operation is a totally different proposition, one that the

world cannot have too much of.

We must, however, not forget that amalgamation does not in any

way guarantee the bringing about of co-operation.

The co-operative movement between our association and local horticultural societies has already met with considerable success and it should have the loyal support of all of us because these local societies are to a great extent, in some cases entirely, composed of professional gardeners. By the working together of these local bodies and the national association a strong organization can be built up which will enable the fundamental principles upon which the N. A. G. stands to be still further strengthened and enable us to go forward with greater rapidity towards the goal of our ideals.

The nature of our work and the questions at issue connected with our positions upon private estates have little or nothing in common with the interests of commercial horticulturists. If there are any points of contact where at any time we can be of mutual help to one another it is only right we should co-operate to the fullest extent of our power.

Anything beyond co-operation would be virtual suicide, so far as

any help that outside organization can bring us in solving the many vital problems connected with professional gardening is concerned. Yours very truly,

ARTHUR SMITH, Reading, Pa.

#### AMONG THE GARDENERS

Thomas Hambleton recently resigned his position as superintendent of the C. A. Wimptheimer estate, at Long Branch, N. J.

It is reported that 825,000 are to be expended for a flower garden and several greenhouses by Ernest Howes, who bought the Col. Albert A. Pope estate, at Cobasset, Mass., and that it will be made one of the show places of that section.

Alexander Michie, of Plymouth, Mass., has taken out his life membership in the N. A. G. Mr. Michie is an enthusiastic believer in the possibilities of what may be attained by the N. A. G. in the interest of the gardener. He is a staunch supporter of it.

The friends of Lester Ortiz, superintendent of the Bliss estate. Bernardsville, N. J., will be glad to learn of the full recovery of his health. Mr. Ortiz is at the present time busily occupied in new development work on the Bliss estate, which contemplates a new range of glass in the not distant future.

John McLane has secured the position of superintendent on the Wickersham estate, Cedarhurst, N. Y. Mr. McLane comes to his new position from Olmstead Bros., Brookline, Mass., under whom he was engaged in landscape work.

George H. Hale, for many years superintendent of the E. D. Adams estate, Scabright, N. J., has resigned.

John Livingston, superintendent of the Chisholm estate, Porchester, N. Y., has just returned from Chicago, where he was for the past two months in charge of the quarantined cattle at the National Dairy Show. Although all the cattle were attacked by the hoof and mouth disease, for which the government claimed the only remedy was slaughter, through proper treatment, Mr. Livingston states, less than 1 per cent. of the cattle died.

#### LECTURES AT BOSTON.

The lecture committee of the Massachusetts Horticultural Society has issued the program of lectures and discussions on horticultural subjects to be given at Horticultural Hall, Boston, on Saturdays at 2 p.m., during January, February and March. These lectures are free.

The program is as follows:

January 16. "Selection and Care of House Plants," by Frederick E. Palmer, Brookline.

January 30, "Conference on Garden Planning and Planting," conducted by the staff of the Massachusetts Agricultural College. 10.60 a. m., "Trees and Shrubs for Home Grounds," by Prof. A. K. Harrison, 10:45 a. m., "Garden Planning," by P. H. Ellwood, Jr., 11:30 a. m., "Garden Furnishings," by Prof. F. A. Waugh, 1.30 p. m., "Practical Management of the Home Flower Garden," Prof. A. H. Nehrling. 2:30 p. m., "Herbaceous Annuals and Perennials." by A. S. Thurston.

February 6. "The Home Vegetable Garden," by H. F. Tompson,

February 13. "Conference on Fruit Growing," arranged by the Massachusetts Agricultural College. 10.00 a. m., "Grafting and Budding," by Prof. W. W. Chenoweth. 11.00 a. m., "Pruning." by Prof. F. C. Sears. 1.30 p. m., "Spraying," by Prof. R. W. Rees. 2.45 p. m., "Small Fruits," by Hon. Wilfrid Wheeler.

February 27. "The Culture of Hardy Shrubs," by Arthur E. Thatcher, Bar Harbor, Me.

March 6. "The Insect Outlook for New England." by Dr. H. T. Fernald, Amherst.

March 13. "Hardy Herbaceous Flowers," by W. A. Manda, South Orange, N. J.

March 27. "Diseases of the Peony," Illustrated, by Prof. H. H. Whetzell, Ithaca, N. Y.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. S. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### ASSOCIATION NOTES.

The secretary had intended to have published and placed in the members' hands by this time copies of the constitution and by-laws revised to date, but on attempting to compile it he saw immediately that further revision will be necessary in order to have conformity and consistency, hence publication would be a useless expense.

The last published constitution and by-laws was in 1910, but in 1912 and 1914 amendments were enacted to Article 2 dealing with classification of membership. These amendments made changes in but two sections, and other sections which should have been changed to conform to the new sections were not disturbed.

In order to make an intelligent arrangement of the various classifications of membership, it will be necessary to revise the entire seven sections of Article 2, to conform to the spirit of Sec-

tions 1 and 2, which have been amended.

While the secretary has a pretty good idea of the intent of the changes, he did not feel like arbitrarily recasting the most important article in our constitution. Instead he will compile an entirely new article, carrying out the spirit of the amendments and submit same to the Executive Committee for submission to

Both the old and the new will be published in these columns side by side so that the need for revision may be apparent.

The proceedings of the Newburgh-New York convention will be printed and delivered to the membership about February 1, provided a couple of belated photographs of members of the Executive Committee arrive in time.

Following previous custom, the secretary is anxious to present portraits of the full set of officers, but has not so far succeeded

in getting a full set of photographs.

The series of articles on the park systems of various Pacific Coast cities begins this month with Seattle. Each month until the August convention one city will be covered, San Francisco, Los Angeles, San Diego, Portland, Tacoma, Spokane and Vancouver filling out the eight months and representing the eight Pacific Coast cities which have something to show in the way of park development, and all of which can be visited on the tour to the San Francisco convention with but slight additional railroad fare over a direct route fare. Read these articles and you will certainly plan to make the circuit of the Coast.

Members desiring up-to-date information on resurfacing of boulevards and drives and hard surface road construction should secure from Wm. H. Connell, Chief of Bureau of Highways, Department of Public Works, Philadelphia, Pa., the publication of that department, "Report on Service Test Road," which, besides containing a mass of detailed information such as specifications, cost records, etc., has thirty full-page half-tones illustrating every step in the construction and reconstruction of various types of hard surface paving. Philadelphia made exhaustive tests along this line last year, and the report on the subject is a text book worth having.

The little membership roster and year book recently sent to members seems to have made quite a hit, as the secretary has received numerous complimentary acknowledgments. The typographical work on the old leaflet form of roster cost practically the same as the new form, while a small booklet is more likely to be kept in a desk pigeon hole, or carried in the pocket for ready reference, hence the change of form.

To those who recall our convention at Harrisburg in the days of our earnest and efficient co-worker, F. L. Mulford the following message from Harrisburg received by the secretary will be

"The Harrisburg Park Commission, of which Grant V. Forrer was superintendent, is no longer in existence. The commission form of government has been adopted by Harrisburg, and the work of the park department is now under the supervision of the Department of Public Property and Parks with M. H. Taylor as superintendent. We do not feel, however, that it is of any advantage to the department to belong to your association, and are therefore returning your bill."

### PARK DEPARTMENT PERSONALS

Mr. Phelps Wyman, landscape architect of Minneapolis, was mentioned in our October notes among others who had dropped their membership with the association on account of leaving park work or otherwise. This was a little misleading, as Mr. Wyman is very actively identified with and interested in park work, and to prove it he has reinstated himself as an associate member of the association; in fact, his being dropped was entirely through a misunderstanding.

J. O. Convill has succeeded E. L. Mische as superintendent at Portland, Orc. Mr. Convill was for many years assistant super-intendent, and fits into the position nicely. He has notified the secretary of his desire to become a member of the association, and is anxious to have members enroute to the San Francisco convention stop off at Portland.

Earnest Kettig, superintendent at Louisville, Ky., whose membership had been permitted to lapse, has thought better of it, and reinstated himself to good standing. Mr. Kettig's name does not appear on the official roster issued prior to his reinstatement, hence members should make the notation in their roster books. Louisville has been making rapid progress in recent years along the line of playgrounds as set forth in a recently published report.

Ray F. Weirich, of Des Moines, Ia., has severed his connection with the park department of that city, and has engaged in private practice as a landscape architect. This seems to be getting to be a habit with many of our members, and would indicate that the field of landscape architecture is a promising one or else a haven for deposed park executives. Mr. Weirich incidentally is drop-ping his membership in the association, which is unfortunate both for him and for us.

Fred C. Green, the genial superintendent and secretary at Providence, R. I., is already planning for next year's convention, and has sent to the secretary for an itinerary and routing so that he will be able to see as much as possible of the entire Pacific Coast. Mr. Green has never missed a convention since becoming a member of the association, and gets much pleasure as well as profit from convention sessions and travel enroute.

J. H. Blackwood, secretary at Winnipeg, writes that the war is not having the depressing effect on Canadian cities that is commonly supposed, and but for the assembling and drilling of several thousand soldiers in the city all the time, there is no evidence of the war in Winnipeg. Mr. Blackwood is laying his plans already to attend the San Francisco convention next August, and George Champion, superintendent, will of course be on hand as he rarely misses a convention.

Wm. A. Gorman, for several years superintendent at Brooklyn, is disengaged as the result of numerous changes made in the various park departments of Greater New York during the past year. Gorman made are excellent regord in his administration of park affairs in Brooklyn, which includes the famous Prospect Park, and our membership certainly will hope that he secures another assignment and remain in park work.

Clarence L. Brock, superintendent at Houston, Tex., has forwarded the editor a copy of the "City Book of Houston," which is about the finest thing in the way of a municipal hand book which we have seen. It is a 400-page publication containing full reports of all municipal departments, commercial articles and statistics, scores of illustrations of scenic and commercial views; in fact, a combination booster book and municipal report which might well be patterned after by other cities. If you want a copy, a request to Mr. Brock will probably get you one, but if you get one, you might as well plan your return trip from San Francisco v.a the Southern route because you will sure want to see Texas.

Frank Brubeck and Wood Posey, formerly superintendent and secretary at Terre Haute, Ind., but deposed last year through a radical change of administration, are probably deriving consid-(Continued on page 1)

# Seattle's Recreation System\*

By J. W. Thompson, Washington.

It is usually a source of great surprise to visitors to the Pacific Coast to find the cities so well provided with modern recreation facilities, and while it is quite generally known that Seattle has become the commercial metropolis of the Pacific Northwest, it is not as well known that it is further advanced in the matter of the acquisition and development of recreation grounds and facilities than any city west of Chicago, and this includes a number of cities much larger in population than Seattle.

Contrary to the usual experience of Western cities which have sprung up and grown rapidly, the city beautiful idea has not been lost sight of and from the very beginning of the real growth of the city plans

were made to provide recreation spots.



MT. BAKER PARK LAKE AND WASHINGTON BOULEVARD.

Nature has blessed Seattle with a magnificent setting for a beautiful city, nestling between two snowcapped mountain ranges, with lakes and hills in and

about the city.

With the placid waters of Puget Sound, an arm of the Pacific Ocean, forming the western boundary of the city, Lake Washington, thirty miles in length, forming the eastern boundary, the city rising on its seven hills between the Sound and the lake, with two large lakes (Lake Union and Green Lake) within and surrounded by the city, with the snow-capped Olympics across the Sound to the west, the lofty Cascades across the lake on the eastern horizon, Mt. Rainier, the highest mountain in the United States in full view to the south and a distant view of Mt. Baker, near the international boundary to the north, what more could one conceive in the way of scenic environment. In addition to this wonderful topography was the added blessing of beautiful forests covering the hills and native vegetation in great variety, so that the beauties of nature were in evidence on all sides.

The citizens of Seattle were quick to realize that, with nature's endowment, the city had before it an opportunity to provide a park and parkway system which would attract the eyes of the nation and in 1904, when the charter of the city was being revised in order to lay the foundation for a large city, provision was made whereby the jurisdiction and control of all recreation properties and facilities were placed in the

The first of a series of articles which will appear monthly between now and the San Francisco convention, describing park development in the cities of the Pacific Coast.

hands of an honorary park commission, absolutely independent of the legislative branch of the city government and with certain fixed revenues.

The first step was the adoption of a comprehensive plan, providing for a series of parks and playgrounds in all sections of the city with a chain of boulevards connecting many of them, the idea being to preserve as many beauty spots and scenic points as possible.

The citizens of the city approved the plan and have consistently and regularly provided the funds for carrying them out, four million dollars in special funds having been voted by the people for land acquisition and improvement as well as about two million dollars in regular revenues since 1904, so that the Seattle Park System as it stands today represents an investment of six million dollars.

Eighteen hundred acres of property have been acquired for park purposes, most of it wooded area embracing natural features which were sought to be preserved.

There are thirty-three parks ranging in size from a city block to two hundred acres in area. The system of providing a park in every district in the city has been followed, resulting in many small neighborhood parks in preference to one or more large parks and few small ones, as is the custom in many cities. The Seattle plan is to provide a park or a playground within a half mile of every home in the city, and this will be the condition when the plan is carried out. Twenty-five of these parks are improved and open for public use at this time and improvement work is being carried forward systematically. Of the parks in use about two-thirds are of a standard type of community park, containing lawn areas, flowers, trees, shrubbery, walk and resting spots. Volunteer Park, the close-in park, is the most formal and metropolitan park of the



TRINK POULEVARD IN COLMAN PARK.

system, although but forty-eight acres in area. Broad lawn areas interspersed with native trees, walks, drives, music pavilion, pergolas, conservatory, observation tower, children's playgrounds, statuary, formal gardens, etc., go to make up a rare combination of landscape treatment and recreation features, while the scenic outlook from the park excels that of any other point in the city, it being the highest in elevation and commanding a sweeping panoramic view of hills, lakes, ocean and mountains.

Woodland Park is the largest park in the city, one hundred and seventy-nine acres in area, and as it contains a greater variety of features which appeal to the masses, its patronage is the largest. The entire area originally was wooded with hundreds of tall fir and cedar trees, and these have been preserved except in sections necessary for open landscape treatment. The park has a half mile of frontage on Green Lake, affording boating and bathing facilities, extensive athletic field areas for all forms of sports, picnic and concert groves, broad lawn areas, miles of walks and drives and a very creditable zoological exhibit, housed in modern buildings.



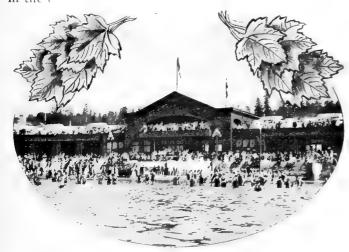
BUFFALOES IN WOODLAND PARK.

Ravenna Park is one of the most unique natural parks to be found within the limits of a city, containing sulphur and iron springs, famous for their medicinal properties; also a group of large fir trees, several more than ten feet in diameter.

Schmitz Park, a beautiful tract of virgin forest on the West Seattle peninsula, is a nature lovers' paradise and is regarded as the most valuable park property of the system, as its natural features place it in a class by itself.

Leschi, Madrona and Mount Baker Parks on the shore of Lake Washington are typical lakeside parks, always popular with people bent on outdoor recreation.

Kinnear Park is distinctive by reason of its being a commanding viewpoint, on Queen Anne Hill, overlooking the harbor, also because of its beautiful landscape work and vegetation, it being the second oldest park in the circ

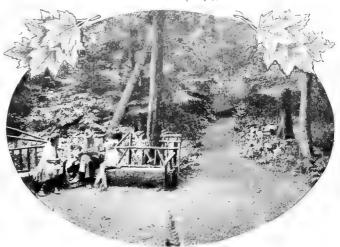


ALKI BEACH PAVILION.

Alki Beach, the only municipal bathing beach on the Pacific Coast, is the great recreation spot of the city during the mid-summer season. Located at West Seattle at the exact spot where the pioneers of Seattle first landed and settled, a half mile of salt water frontage at the entrance to the harbor has been acquired and improved as a marine view park and bathing beach.

A substantial bath house has been constructed, having a capacity of 5,000 persons per day and during the three months' bathing season of 1914 approximately 65,000 bathers were registered.

In the matter of children's playgrounds, Seattle has



IN THE WILDS OF SCHMITZ PARK.

made wonderful progress, statistics proving that there are only three cities in the United States, regardless of size, that have superior playground facilities to those of Seattle.

In addition to playground sections and equipment in many of the parks, twenty-four distinct playground sites have been acquired ranging in size from a city block to fifteen acres, the whole aggregating one hundred and forty-four acres. Twenty of these playgrounds are in use at this time, twelve of them being well improved with outdoor gymnasium apparatus and equipment, wading pools, tennis courts, ball fields, shelter buildings, etc., with trained instructors supervising during the summer season, the remainder being serviceable as open fields, with ball grounds, tennis courts and simple apparatus, such as teeters and swings.

For winter work, four substantial field houses or



ORGANIZED PLAY IN PARKS

recreation centers are in operation, each having club rooms, social halls, reading rooms, assembly hall for lectures, entertainment and dancing parties, also public gymnasiums, with instructors conducting classes for people of all ages, practically providing athletic club service to the public free of cost.

The crowning features of Seattle's recreation facilities from a tourist's viewpoint is the Lake Washington boulevard system with its chain of scenic driveways, leading from park to park, through wooded dells, along the shores of lakes, on the high ridges overlooking the lakes, or by a serpentine course up and down the hills, with a fascinating panorama of forest, hills, lakes and mountains almost constantly in view.

Thirty miles of these scenic driveways are now in use and the chain eventually will aggregate fifty miles, practically belting the city and connecting the park

system.

In addition to the features now in use, Seattle is carrying forward a number of notable improvements which will add greatly to its recreation facilities.

At Jefferson Park on Beacon Hill, overlooking the harbor and city, an eighteen-hole golf links has been laid out and improved ready for service in 1915. Being only fifteen minutes from the heart of the city and vet amid scenic surroundings, this course will, no doubt. attain a national reputation within a few years.

At Green Lake, the entire water frontage of the lake has been acquired and by a diking and dredging process over one hundred acres of land is being reclaimed and a parkway is being constructed completely around the lake, with a series of small parks and children's playgrounds. This will give nearly four miles of lake frontage, with a large natural lake, entirely within a park, the whole surrounded by a well settled residence district.

The boulevard system is being extended by the construction of a four-mile scenic driveway around the crest of Queen Anne Hill, a close-in, high-class residential district, while a parkway to the northwestern part of the city to Fort Lawton, via Magnolia Bluff, a high promontory at the entrance to the harbor, is under way and is destined to be a great scenic feature on

account of its marine and mountain view.

Altogether Seattle can well feel proud of recreation facilities that are worthy of a city double its population. The balmy summer climate of Puget Sound, the mild winters and the array of recreation features afforded are all conducive of outdoor life and physical development, hence it is little wonder that the government statistics show that Seattle is the healthiest city in the United States, and it is the verdict of those who have visited or located in Seattle that it is the most beautiful city.

# Permanent Policy in Park Management Desirable

By E. T. Mische, Oregon.

A progressive park extension program is inseparably associated with public welfare, and its working out is but a part of a movement dealing with a complex urban organism.

Deficiencies and failures due to the lack of a general plan on the one hand and of a body controlling a harmonious and continuing plan on the other are evident in park affairs. Twice has the public had an opportunity to pass upon an extension policy in park matters, and each time have the measures been defeated. We are unwilling to believe that such a short-sighted and expensive action would be deliberately and consciously recorded were the facts necessary for an intelligent

judgment made known.

In recent years there has been a special investigation made of our harbor, another of park needs, and yet a third of the city at large and including transit affairs, parks and harbors. At a cost of over \$20,000, publicly subscribed, plans were prepared by a Chicago expert, and still there is no official adoption of them as a working basis and no public assurance that the advantage to be gained from these expert investigations is to be utilized. Moreover, there is no controlling body actively engaged in promoting the interests of the city by devising schemes, criticising others, and shaping public affairs in a manner to assure the public that current constructions of more essential sorts are being made to fit the needs of the city at large, in a broad-gauged, thorough-going fashion.

If past effort in proposing a city plan is an esthetic vagary, utopian, having impractical dreams unacceptable to prudent and progressive business men, it is possible that the scheme requires revision or should actually be rejected, yet it does not argue that the

underlying motive that brings such a plan into being is not meritorious.

County officials are engaged in developing a system of roads that with slight additional provisions would serve as parkways; the School Board is often buying land for school sites; occasionally, some of this land is sold. With some modification these selfsame parcels could advantageously and often very econom-

ically be incorporated in the park system.

European cities devise official plans of suburban tracts and private owners are by law compelled to conform to them. Some American cities, like Baltimore, scheme urban street extensions in advance of actual needs. True, the adoption of this anticipating method is not an insurance against all future ills; the merit of good designing will help vastly, but unforeseen changes will occur that human prophecy and limitations can not fathom, but these deficiencies are not sufficient excuse to abandon all effort toward doing any planning for the future. If we are to profit by forethought; if we are to gain by following a meritorious plan evolved after due study by competent collaborators, we should see to it that a general working basis is approved, its essentials understood by the public at large and insisted upon in public affairs.

In all of this work there should be a unifying and co-ordinating of results even though the separate results are under different control, else there will be needless waste or conflict of purpose along with the unfortunate results that follow such procedure. Were this view of the general problem agreed upon, it would assume the collection of data of the city, both physical and social, would be made a permanent work, be defined and made progressive and systematic in method and sort; that the data would be conveniently available to the general public and evidence given that it is officially used by competent designers of

<sup>\*</sup>Extract from 1's report as Superintendent of Parks, Portiand, One

public work and all public work harmonized into a general unit. Upon this foundation an official plan could be promulgated and criticised and revised and otherwise controlled by a body of citizens qualified to pass upon it. Thereafter, this same body should be empowered to make reports and recommendations upon specific parts of the plan, such reports to become public records. This body would thus be unofficial sponsors for the securing of the sympathetic working out in all its related parts of an adopted plan. It would not only approve current projects, but if proposed plans were not acceptable, an explanation would be made as to the reasons and suggesting how departures from essential features shall be rectified, or even how the adopted plan may properly be altered to harmonize with later developments.

Current projects which are live issues seem to warrant that some better, more secure, continuing, and approved form of control be put into existence, to the end that public confidence and approval shall develop to such an extent as to require new public officers to follow well understood and approved policies that were advisedly settled upon.

#### A PITA FOR PARKWAYS

During the last decade considerable public discussion was elicited about various phases of a park system and park work. The deduction that the public was ever being better informed and educated upon park affairs could be reasonably assumed. Let it be understood that one of the most fertile means of public extravagance in park expenditure comes about by reason of vacillating policies, upsetting, alternating or subverting policies that should be fixed. Perhaps nothing in municipal life is planned so far in advance as parks. They require for their best and greatest return steadfast adherence to the original plan. Some of the older cities provide glaring examples of unfortunate, short-sighted and wrong conceptions of park affairs. Nor is it always due to political influences nor a lack of good intention. Weakness, instability, inaction or lack of comprehension is quite as dangerous as willful perversion, wanton misuse, or bad administration.

Recently a sentiment has arisen and found champions to the effect that parkways are only useful to those owning automobiles and should therefore be paid for exclusively by such persons, or by the property directly benefited. Another objection is raised against the policy of acquiring a greater width than the minimum required for the construction of a drive. These and similar ideas are not always those promulgated by politicians or class panderers and it would appear that a brief discussion of the subject is desirable.

Parkways are long and narrow parks, ordinarily including a driveway, and distinct from mere boulevards, which are tree-lined streets. The narrowness is primarily due to financial limitations.

What constitutes the essence of park composition is subject to great variation in different people's minds and parkways share this vague and confused conception. We find, therefore, that to many minds, parks are merely land, any size, any location, any or no development and with or without gardening, play features, drives and walks. On the contrary, let it be affirmed that park systems are justifiable to a community by serving in their natural aspect or by arrangements of natural vegetation and earth surfaces, as a safety valve to offset the artificialities of urban life, or in other words, as a health measure in conserving and restoring health.

A parkway system should give pleasant and convenient access to the landscape offerings of the region. The drives in it should possess graceful alignment, easy grades, and display such fitness to its use as to satisfy the intelligent thought of the users. Undue narrowness weakens the effect and leaves no parkway advantages. Parkways of that type exist in name only and the absurdity of any action based on a counter hypothesis is evident by stating that if a tree-lined street is the type of parkway to be used as a standard, it is quite unnecessary to expend money on any of them, since a new nomenclature for streets will be all sufficient. To assume that tree-lined ways are parkways is to accept a misnomer for a fact.

#### PARK DEPARTMENT PERSONALS.

(Continued from page 27.)

erable satisfaction from the fact that, according to news items of recent date, usually all of the idministrative officials of Terre Haute, from the Mayor down have been indicted by the Federal Grand Jury, and have been languishing in jail. He who laughs last, languishes best.

C. M. Loring, of Minneapolis and Riverside, Cal., celebrated his S1st butl day (centiv. and a lumbron in his Lonor was served at the Mission Inn. according to a press report. Mr. Loring spends his winters in California and devotes most of his time and considerable of his means to the beautification of Huntington Park in Riverside, of which he is honorary superintendent. Minneapolis is Mt. Loring's home however, and his name will always be identified with the park system of that city on account of his years of service on the Park Board and the beautiful park which heats his name. In spite of his advanced years, Mr. Loring is in splendid health, and is probably our oldest member actually in service.

#### PARK INSTITUTE OF NEW ENGLAND.

At the second meeting of the Park Institute of New England held in Worcester, Mass., December 16, twelve cities were represented with twenty-five present.

Mr. G. A. Parker, of Hartford, gave a talk on "Park Accounts and Reporting" after which there were questions and discussions on that subject.

Mr. Thomas E. Holland, Supervisor of Playgrounds, Worcester, Mass., read a paper on "Worcester Recreations," Owing to injuries received in an automobile accident Mr. Shea, of Boston, was unable to present his paper on "Park Administration and Legislation."

Mr. 8. Wales Dixon, Supervisor of Recreations in Hartford, gave a very interesting illustrated talk on "Recreations in Hartford," after which there were questions and discussions.

Mr. Chas. E. Ladd, Superintendent of Parks, Springfield, Mass., gave a report on "Municipal Dancing in the School Building," He said, although they had just started dancing in the school building, he was confident of its success.

Several members inspected the "Toboggan Slides" in Green Hill Park.



MODEL OF PROPOSED DESIGN FOR GEORGE II HERMANN PAPE.

SCALE LINCH. 160 FFFT. EXHIBITED AT TEXAS SECTION FLOWER SHOW, HOUSTON, IFNAS, BY C. I. B. COS.

SUPERINTENDENT OF PARKS.

# PRELIMINARY SCHEDULE SEVENTH ANNUAL EXHIBITION AND CONVENTION AMERICAN SWEET PEA SOCIETY.

To Be Held Under the Auspices of the Newport Horticultural Society and the Newport Garden Association, Newport,

R. I., July 8 and 9, 1915.

#### PRIVATE GARDENERS.

#### Section A.

Class 1. Peter Henderson & Co.'s Prize. For the best 12 vases, 20 sprays to a vase, of 12 distinct varieties of Spencer Sweet Peas: first prize, \$25.60; second prize, \$15.00; third prize, \$10.00.

Class 2. The Arthur T. Boddington Prizes. Challenge Silver tup, value \$50,00. For a collection of Sweet Peas, 25 varieties, not less than 25 stems to a vase, to be shown with Sweet Pea foliage only. To be won twice by the same exhibitor. There will also be awarded to the winner of this cup (each time won) a cash prize of \$25,00; second prize, \$15,00; third prize, \$10,00.

Class 3. The Weeber & Don Prize. For the best vase of 100 sprays mixed Sweet Peas, arranged for effect. Gypsophila and foliage other than Sweet Pea can be used: first prize, \$5.00.

Class 4. The Mount Desert Nurseries Prizes. For the best vase of Sweet Peas, one variety, any color, 25 stems arranged for effect, any other foliage than Sweet Pea may be used: first prize. \$7.50; second prize, \$2.50.

Class 5. Joseph Breck & Sons' Prizes. For the best 3 vases, 25 stems to a vase, Spencer varieties: first prize, \$7.50; second prize, \$2.50.

(lass 6. The Henry A. Dreer Prizes. For best vase of Spencer Sweet Pea, Royal Purple: first prize, \$5.00; second prize, \$2.50.

Class 7. For best vase of Spencer Sweet Pea, Margaret Madison Improved: first prize, \$5.00; second prize, \$2.50.

Class 8. Hitchings & Company's Prize. A Silver Cup. For the best 8 vases of Sweet Peas, 25 stems to a vase, 8 distinct Spencer varieties named.

Class 9. The Sutton & Sons' Prize. A Silver Cup. value \$25.00. For the best table of Sweet Peas, covering 12 square feet, and not to exceed 3 feet in height. Gypsophila and foliage other than Sweet Pea may be used.

(lass 1c. The Burnett Brothers' Prize. For the best vase of White Sweet Peas (Spencer variety), 50 sprays to the vase. Gypsophila or foliage other than Sweet Pea can be used: first prize, \$10.00.

Class 11. The Thorburn Prize. A Silver Cup for best 12 vases of Sweet Peas, 12 Spencer varieties, 25 blooms to a vase.

#### Section B.

Class 1. W. Atlee Burpee & Co.'s Prizes. For the finest 12 vases Sweet Peas in 12 distinct varieties, correctly named: first prize, Silver Cup, value \$25.00, and \$10.00 cash; second prize, \$10.00; third prize, \$5.00.

Class 2. The Stumpp & Walter Co.'s Prizes. For the best 6 vases of Sweet Peas, 6 distinct Spencer varieties, 20 sprays to a vase: first prize, \$15.00; second prize, \$10.00; third prize, \$5.00.

Class 3. The Henry F. Michell Co.'s Prizes. The "Michell Seed House" Silver Medal for 6 vases, 25 sprays each, 6 distinct Spencer varieties Sweet Peas.

Class 4. The "Michell Seed House" Bronze Medal. For best 25 blooms "Illuminator" Sweet Peas,

Class 5. The "Michell Seed House" Silver Medal. For best vase Spencer varieties Mixed, not less than 100 blooms. Sweet Peas.

Class 6. The "Michell Seed House" Bronze Medal. For the best vase "Mixed Sweet Peas," not less than 100 blooms.

Class 7. The "Michell Seed House" Bronze Medal. For the best 2 vases of 12 sprays each White, and 12 sprays Pink Sweet Peas.

Class 8. The Thomas J. Grey Co.'s Prize. A Cut Glass Bowl. For the lest centerpiece of Sweet Peas for table decoration. Foliage other than Sweet Pea can be used.

Class 9. Watkins & Simpson Prize. For the best six vases of Sweet Feas Spencer, six varieties, 25 flowers to a vase. First prize, \$10.0%

#### Section F.

Class 2. The Jerome B. Rice Seed Co.'s Prizes. For the best vase of 1915 Novelty Sweet Peas. 25 sprays 1 variety: first prize, \$5.00; second prize. \$3.00; third prize, \$2.00.

Class 4. The American Sweet Pea Society's Silver Medal will be awarded for the best collection of Sweet Pea Novelties which did not appear before 1914.

Class 5. The American Sweet Pea Society's Silver Medal will be awarded for the best collection of Sweet Pea Novelties appearing in 1915 catalogues only. The American Sweet Pea Society's Bronze Medal will be awarded for the second best collection.

For the largest and most meritorious exhibit of Sweet Peas, The A. S. P. S.'s Gold Medal will be awarded.

#### NEWPORT GARDEN ASSOCIATION.

(Class G 1 to G-5 Open to all.)

#### Section G.

1st 2nd 3rd Prize, Prize, Prize,

Class I. For the best tub of Sweet Peas of any White, Cream or Cream Yellow

Lavender, Mauve, Purple or Blue.... 8,00 | 6,00 | 4,00 | Class 4. For the best tub of Sweet Peas of any Pink, Orange or Salmon...... 8,00 | 6,00 | 4,00

NEWPORT HORTICULTURAL SOCIETY.

(Class G-6 to G-21 Open to all.) SWEET PEAS (Spen:er Variety).

#### Section G.

		lst	2nd	3rd
		Prize.	Prize.	Prize.
Class -	<ol> <li>25 sprays, any White variety</li> </ol>	\$5,00	\$3.00	\$2.00
Class	7. 25 sprays, any Crimson or Scarlet	5.00	3.00	2.00
Class -	8. 25 sprays, any Rose or Carmine	5.00	3.00	2.00
Class	9. 25 sprays, any Light Pink	5,00	3.00	2.00
Class 1	0. 25 sprays, any Deep Pink	5.00	3.00	2.00
Class 1	l. 25 sprays, any Blue	-5.00	3.00	-2.00
Class 1:	2. 25 sprays, any Mauve	-5.00	3.00	2.00
(lass 1	3. 25 sprays, any Cream or Cream-Yel-			
	low	-5.00	-3.00	2.00
Class 1	4. 25 sprays, any Salmon or Orange	5.00	3,00	2.00
(1,1~~ ]	5. 25 sprays, any Lavender	5,00	3,00	-2.00
(lass 1	6. 25 sprays, any Maroon or Purple	5,60	3,00	2.00
Class 1	7. 25 sprays, any Picotee-edged	5.00	3.00	2.00
Class 1	<ol><li>25 sprays, any Striped or Flaked Red</li></ol>			
	or Rose		3,00	-2.00
( ]a 1	<ol> <li>25 sprays, any Striped Flaked Blue</li> </ol>			
	or Purple	5,00	-3.00	-2.00
Class 2	<ol> <li>25 sprays, any Bicolor other than</li> </ol>			
	Picotee-edged	5,00	3.00	-2.00
Class 2	<ol> <li>25 sprays, any other color distinct</li> </ol>			
	from the above	-5.00	3.00	-2.00

the most first prizes in this section, viz.: G 1 to G 21. If there should be a tie, the award will include the most second prizes.

The Garden Magazine Achievement Medal will be awarded to the

The Garden Magazine Achievement Medal will be awarded to the finest vase of Sweet Peas in Section G. Classes 1 to 21.

The F. R. Pierson Cup will be awarded to the exhibitor taking

#### Section G.

Class 31. The R. & J. Farquhar & Co.'s Prizes. (Private Gardeners only.) For the best Spencer Sweet Peas, 6 distinct varieties, 1 vase of 20 sprays of each variety, open to private growers only: first prize, \$12.00; second prize, \$8.00.

#### NEWPORT GARDEN CLUB.

# For Private Gardeners and Amateurs. Section G.

Class 34. De oration for table of eight covers, glasses, cutlery and linen to be used and supplied by the exhibitor (except table): first\_prize, a Silver (up and \$25.00; second prize, \$15.00; third prize, \$10.00. Exhibitors will be allowed to use Sweet Pea foliage, Asparagus, Smilax, Gypsophila, or all; ribbons also allowed.

Class 35. For the best display of Sweet Peas for effect, covering a round table, four feet across, to be supplied by the society. Sweet Pea or other foliage can be used: first prize, \$15.00; second prize, \$10.00.

The Final Schedule will be published about June 1 with entry blank. Address all communications to Harry A. Bunyard, Secretary, 342 West 14th street, New York City.

#### QUERIES and ANSWERS

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.

Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

Nothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

Can any reader of the "Chronicle" give us any information as to what causes the distorted and curled appearance of the young growths on antirrhinums? We have a number of plants, the growths and leaves of which are curled up very much after the same manner that peach leaf curl affects the leaves of peach trees. We have tried pinching out the affected parts, but the resultant breakers are affected the same way. We hardly think that this is caused by rust, a description of which appeared in the last issue of the "Chronicle." I. C., Long Island.

Can you give me any information through your "Queries and Answers" column about the cultivation of Gesnerias? Should they be started up in the spring or fall?-H. H. A., Ohio.

From the professional gardener's point of view, which are easiest to manage and give best results, own root, or grafted roses?—A. K. W., Massachusetts.

#### SNAPDRAGON RUST.

That the disease which attacked my antirrhinums belong to a different species of fungus to that referred to by Mr. Rees does not appear from a practical point of view to be of very great importance, although at the same time I was more than pleased to have it correctly named. In a further communication Mr. Rees asks me to make the correction at once, "otherwise much loss of time and money would caused." I must confess myself as being totally unable to understand Mr. Rees' point of view in making the latter remark.

The following facts will, I think, be admitted:

The disease both belong to the family of parasitic plants known as fungi.

They propagate themselves and spread from one plant to another by means of very minute spores which are produced by

the million from one pistule.

The attack in both these cases generally starts at the lower leaves, spreads upwards from one to another, soon the stems are attacked and the plants are ultimately killed.

Mr. Rees stated to me that any one might mistake one species for the other. I presume that he means any one who is not an

expert mycologist.

It is possible that in using the words combatting or controlling the disease I may have been misunderstood. Early last year in these columns I ventured the somewhat dogmatic statement that no fungous disease attacking plants can be secured so far as the particular part of the host plant affected by the disease is concerned. And I have yet to learn any reasons for altering this opinion.

Methods of combatting and controlling a fungous disease, whether it is called a rust, leaf-spot or anything else, are therefore only two, one only of which is suggested by Mr. Rees, that This is of course of removal and destruction of diseased plants. valuable in reducing sources of infection, provided every plant or portion of a plant attacked is removed before spores are produced, but this is a practical impossibility. Even if it were possible, what about the content of the provided content possible, what about the spores which started the infection? What guarantee is there that some of these original spores are not still floating about or upon healthy plants but yet ungerminated? One would suppose that any one, especially a scientific pathologist, acquainted with the life history of fungi, would be the first to advise the use of a fungicide in addition to the destruction of diseased plants because the latter is by itself, as all practical men know, useless. Ordinary common sense tells us that in controlling a fungous disease it is the spores that have to be prevented germinating, and with this end in view the

most advanced practice puts into action methods of control before the disease appears, whereby healthy plants are kept in that condition by the use of a tungicide, whether we are considering possibilities of potato blight, for instance, or any other.

In the case of a new fungous disease appearing upon plants not hitherto troubled in this way, the most natural step to take at once is to spray, and instead of looking upon this as a loss of time and money eve y one with the merest elementary knowledge of plant growing considers that not to spray is the easiest method of having time and money already spent in raising plants go for nothing.

It would be unwise for any one to limit the possibilities of science, and to say that it will never discover a method of successfully controlling fungous diseases without the necessity for spraying with a fungicide, but at the same time it is extremely improbable that this will ever happen.

We must always be careful not to confuse science with theory. Science is only another word for true knowledge, and therefore anything untrue is never scientific. Whereas theory is merely opinion, and may be right or wrong, according to circumstances.

It is as unsafe for science to put forth dogmatic theories as it is for any one else. The supposed principles upon which it relies for its theories are often no more than first approximations to the truth, and the want of parallelism, which may be neglected in the laboratory, give rise to wide divergencies when applied to practice. The method of science is, after all, only an extension of experience. In many matters connected with plant life, especially, for instance, the causes of soil fertility, science has yet only reached the position of being able to explain the why and wherefore of facts which were known to practice a thousand years before what we call science existed.

The danger of dogmatism is well known by the story of a physician who, while lecturing before a non-professional audience, said that grippe is always caused by wet feet. A man in the audience thereupon got up and stated that he had just recovered from a severe attack of that malady, but that he had gone about upon two wooden legs for several years.

ARTHUR SMITH.

#### THE LATE JOHN MUNSON.

John Munson, the genial, well-known proprietor of the Minneapolis Floral Company, of Minneapolis, Minn., passed away at his home on the evening of December 28 after a short illness. He was taken sick a few days before the holidays but was reported better on Christmas day, and the report of his death came as a shock to his many friends. Mr. Munson was forty-eight years old and was well known to the trade. He came to this country twenty-two years ago from Sweden, his native home. He acquired his knowledge of the profession in Sweden and Denmark when a youth, and three years after coming to this country started in business for himself at his present establishment, which is now one of the largest of its kind in the state. Mr. Munson is survived by his wife and adopted daughter. The services were held at the Lakewood Cemetery Chapel on December 31. The floral pieces were numerous, testifying to the esteem by which he was held by his many friends.

#### HOLLAND NURSERY STOCK NOT IMPAIRED.

One of the nurserymen at Oudenbosch in the Netherlands (Holland) has been informed that people in the United States are concerned about the quality of the Holland nursery stock which they believe to have greatly suffered from inundations.

It was rumored that the greater part of Holland was either inundated by salt or by fresh water, in which case the trees, etc., in the nurseries would of course

have suffered considerably.

The weekly "De Tuinbouw," which is officially published by the Netherland Horticultural Council, states that buyers abroad can be assured Netherland nursery stocks, shrubs, trees, bulbs, roots and all other kinds of plants are this year of the same quality as formerly.

If the report were true, nurserymen would of course have requested cancellation of their agreements, in order not to endanger their future reputation.

### OF INTEREST TO ALL

#### NEW YORK FLORISTS' CLUB.

The January meeting of New York Florists' Club was Installation Night. President Bunyard after being welcomed to the chair by the retiring president, Wm. H. Duckham, delivered his inauguration address.

He said in part:

"As president of your club, it is my desire to try and uphold its traditions and carry on the work, ideas and high standard of achievement, as laid down by the men who organized and continued it. Most of these men are still living and doubtlessly feel that their work has not been in vain. They should have our sincere thanks. I want my administration to be creative, constructive and progressive and to carry out especially one idea that is not new, but of great moment to the members. That is, for the New York Florists' Club to have and own a permanent home. where we can meet for social and business intercourse, hold our meetings and entertain our out-of-town members and friends; a home built for posterity. It is possible!

"For progressive legislation, affiliation is but the beginning. will broaden and grow as time flies. It is an epoch in this club

at which you will be able to point with pride in the near future.

"In union there is strength,' and while the S. A. F. & O. H. has given us this opportunity, cannot we look around in our vicinity and see if we, too, cannot offer the right hand of fellowship. I note in the property of the light hand of fellowship. that the president of the New York Florists' Club is an exofficio member. This club has leased from the city of New York
the Bartow Mansion situate in Pelham Park, near City Island: have appropriated money to build roads and have already plans in hand for a rose garden and other specialized work. Are you aware what all this means to you? It means primarily that the masses are to be educated along the broader sense of gardening. It means that we are to have a new generation of flower and plant lovers and in time you will become the indirect beneficiaries through increased business; besides this, there are horticultural societies and school garden associations at our door that should at least have our moral support. I would recommend a committee to report upon the number and membership of these societies and their objects, for possible affiliation in some form or other.

"The International Flower Show next March affords unrivaled opportunities for the trade to exhibit and advertise their wares. There should be no waning of interest in this important event. With the clouds of pessimism of 1914 passing away with the advent of New Year, we must gird our armor on and by will and deed make it a success or we shall be held strictly to account. Many other industries are only too glad to seize an opportunity to take part in such an enterprise. So I say, wake up! So let us inject new life, new hope, new stamina into a cause so worthy and with interests so much identified with our own, let us all pull

together for our own common good.

"Our membership is now 464 and includes 156 S. A. F. & O. H. members in good standing. New membership is always in order and we desire all the members we can secure, but our main effort must be to get what members we now have attend the meetings. We must have a sustained interest; we must keep it alive. In plain English, we must have our members satisfied and harmony prevail. I have enlarged some of the committees. Our increased membership and organization demands it; we must broaden out. We must be creative, constructive and progressive. Our motto is, 'All one,' with a Rose for an emblem. The Rose is partly expanded; so, like the flower, let us too expand, but never fade and make our membership for 1915 five hundred or more."

#### **New Everblooming WATER LILIES**

Water Libes every day in the year. This is now possible with these tew Hylads. No better flowers for cutting, shipping or lasting qualities. Awarded a Salver Medal by the Philadelphia Herticultural Society, Nov. 3, 1914. Certificated at New York, Lake Geneva, Wis, and Chicago. Everything in the line of new, rare and choice Nymphicas et all species and varieties known in cultivation.

Send for my book "Making a Water Garden", 550 prepaid. My calalogue will be mailed free on application.

WM. TRICKER, Water Laly Specialist, ARLINGTON, N. J.

#### HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES THE NURSERIES.

There you will find all kinds and you can take your pick from the best that is grown. Maximum Quality at Minimum Prices. Write W. R. Cheas Manager.

THE PALISADES NURSERIES, INC., SPARKILL, N. Y.

#### **CHRYSANTHEMUMS**

Novelties for 1915.

Mrs. Wm. H. Walker, Bob Pulling, Mrs. R. C. Pulling, Joan Stratton, Lelia Mary Bennett, Emma Roope, Mrs. Edgar J. Slater, Mrs. J. Surrey, also the finest of last year's novelties and standard varieties at popular prices.

#### CARNATIONS

Alice, Good Cheer, Pink Sensation, Matchless, Champion, Mrs. Cheney, British Trumpet, Princess Dagmar, Gorgeous, Enchantress Supreme, Beacon and White Wonder.

We have a large stock of chrysanthemums and cannations this year, and can guarantee deliveries out of 214-inch pots in January.

#### ROSES

Don't miss Francis Scott Key and Ophelia. They are the best

It was but the error our 1915 price list, write us.

#### **ELMSFORD NURSERIES**

SCOTT BROS.

ELMSFORD, N. Y.

#### ORCHIDS

We are Special sts in Orchids, we could the grow, import, export and self orchids exclusively. If you are in the market for Orchids we solet your inquires and or eas—Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N. J.

### HAMMOND TRACY

Gladiolus Specialist

WENHAM, MASSACHUSETTS

### VAUGHAN'S SEED STORE

A 1915 NECESSITY

Vaughan's Firebird Cannas, \$1.25 each

43 Barclay St., New York 31-33 W. Randolph St., Chicago

### HILL'S EVERGREENS

Send for Price-list, Mention this magazine

#### D. HILL NURSERY CO.

Evergreen Specialists,
Largest Growers in America, Box 305 Dundee, Ill.

Benningsburger and the second

### ORNAMENTAL IRON

For Lawns and Gardens.

Chas. C. Force & Son,

LET US ESTIMATE ON YOUR WANTS. Madison Iron Works, Madison, N. J.

#### HARRY BALDWIN

альбест то таканаличная выправления при на при принципальный выправления выправления выправления выправления в

idanufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS

MAMARONECK, N. Y.

# E. A. LIPPMAN Green House Shading

6 HIGH STREET, MORRISTOWN, N. J.

I am also making shading up in dry form especially for commer-(ial use, Witte for particulars, stating whether for commercial or private use,

हित हर । वर भारतावातवात्वात २००३ - भर वह अत वाकाकातात व्यः वस वातावातात वर उत्त वय अवव

#### NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists. John Young, secretary, 54 West 28th street, New York.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society. L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 342 West 14th street, New York.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. Meets first Thursday every month, Horticultural Hall, Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Meets third Tuesday every month, Horti-cultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Meets second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Dobbs Ferry Gardeners' Association. Henry Kastberg, secretary, Dobbs Ferry. N. Y. Meets first Saturday each month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls.

Meets at Poughkeepsie, N. Y., second Wednesday every month except May and

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. J. Meets first Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass. James Whiting, secretary, Amherst, Mass. Meets second Tuesday every month.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Paterson Park,
Baltimore, Md.

Meets second and fourth Monday every month, Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Meets monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th street and Columbus avenue, New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. Meets first and third Saturday every month, October to April; first Saturday every month, May to September, Horticul-

Lenox Horticultural Society. G. H. Instone, secretary, Lenox, Mass. Meets first Saturday every month.

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary. Meets first Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society. Percy Ellings, secretary, Menlo Park, Cal. Meets second Thursday each month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Meets fourth Friday every month, Monmouth Boat Club, Red Bank, N. J.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette street.

Meets first Monday every month, Montreal Florists Exchange.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J.

Meets at Madison, N. J., second Wednesday every month, except July and August, 8 p. m.

Nassau County Horticultural Society. Ernest Westlake, secretary, Glen Cove, N. Y. Meets second Wednesday every month, Pembroke Hall, Glen Cove, N. Y., 6 p. m.

New Bedford Horucultural Society. Jeremiah M. Taber, secretary. Meets first Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street, Orange, N. J.

Meets first Monday every month, Jr. O. W. A. M. Hall, Orange, N. J., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London, Conn.

Meets second Thursday every month, 38 Main street, New London, Conn.

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Meets second and fourth Tuesday every

New York Florist Club. John Young, secretary, 54 W. 28th street, New York.

Meets second Monday every month, Grand Opera House.

North Shore Horticultural Society. Jas. Slater, secretary, Manchester, Mass. Meets first and third Fridays every month.

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. Meets first Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society. M. J. O'Brien, secretary, Mt. Kisco, N. Y. Meets third Thursday every month, except June, July and August, at 8 p. m.; December, January and February, 3 p. m., Odd Fellows Hall, Mt. Kisco.

Oyster Bay Horticultural Society. Fred Kirkham, secretary, Glen Head, N. Y. Meets fourth Friday every month, Board of Trade, Oyster Bay, N. Y., 8 p. m.

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 711 Westbank Bldg.

Meets first Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, 497 Bradford street, Pasadena, Cal.

Meets first and fourth Friday every month.

Paterson Floricultural Society. Sebastian Hubschmitt, secretary, 61 Seventh avenue, Paterson, N. J.

Meets first Tuesday every month, Romaine Building, 8 p. m.

Pennsylvania Horticultural Society. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets third Tuesday every month, Horti-cultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut street,
Paterson, N. J.
Meets first and last Friday every month,

Working Man's Institute, Madison avenue, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust streets, Philadelphia, Pa.

Meets first Tuesday every month, Horti-cultural Hall, Philadelphia, Pa., 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. Meets first Thursday every month, Fort Pitt Hotel, Pittsburgh, Pa.

Rhode Island Horticultural Society. A. C. Miller, secretary, 7 Irving avenue, Providence, R. L.

Meets fourth Monday every month, Providence Public Library, 8 p. m.

Shelter Island Horticultural and Agricul-

tural Society.
Fred Kirkham, secretary, Shelter Island, N. Y. Meets first and third Thursdays every

Southampton Horticultural Society. William McLeod, secretary. Meets first Thursday every month, Memorial Hall, Southampton, N. Y.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarytown, N. Y. Meets last Tuesday every month, except December, Corporation Building, Tarrytown, N. Y., 7:30 p. m. Annual meeting last Thursday in December.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y. Meets first Wednesday every month, Parish House, Tuxedo Park.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington, D. C. Meets first Monday every month.

Yonkers Horticultural Society.
Thos. Mahoney, secretary, Yonkers, N. Y.
Meets first Friday every month, Hollywood Inn. Yonkers. N. Y., 8 p. m

Westchester and Fairfield Horticultural
Society.

J. B. McArdle, secretary, Greenwich, Conn.

Meets second Friday every month, Doran's Hall, Greenwich, Conn., 8 p. m.

#### GARDENERS DIARY

International Flower Show. Grand Central Palace, New York, March 17-23, 1915.

American Carnation Society. Annual Show, Buffalo, N. Y., January 27 and 28

American Rose Society. Annual Show, Horticultural Hall, Boston, Mass., March 25-28, 1915.

Massachusetts Horticultural Society. Annual Spring Show, Horticultural Hall, Boston, Mass., March 25-28, 1915.

American Sweet Pea Society. Annual Sweet Pea Show, Newport, R. L. July 8 and

American Gladiolus Society. Annual Gladiolus Show, Newport, R. L. August 18 and 19, 1915.

#### NEW BEDFORD HORTICULTURAL SOCIETY.

At the annual meeting of the New Bed ford Horticutural Society officers were elected as follows:

President, David F. Roy; vice-president, Frank C. Barrows; financial secretary, Walter K. Smith; treasurer, Walter A. Luce; secretary, Jeremiah M. Taber. Executive Committee Frank G. Tripp, chairman; C. W. Young, Jas. H. McVicker, Joseph W. Webster, A. E. Griffin, James Gathby, L. J. Hathaway, Jr.

The Executive Committee rendered the

following report:

"We have within the past year run four free flower shows; a peony show and a rose show in June, a dahlia show in September and a chrysanthemum show in November. All the shows were very successful, and were much appreciated. We gave a large number of prizes, which were in most cases donated by friends of the society and tradesmen.

"The committee at this time wish to express their thanks to the friends who contributed so liberally to make our efforts successful.

"The committee also wish to express their thanks to the members and friends who so generously contributed flowers and plants to make these shows the wonderful displays they were.

"The president, David F. Roy, gave a silver cup for professionals, and William F. Turner gave a silver cup for amateurs. These cups were awarded to the members scoring the highest number of points for exhibits at the monthly meetings during the outdoor season, and had the effect of bringing out some very pretty displays of flowers at our meetings.

"The Entertainment Committee furnished a number of able speakers at the meetings. who spoke on different subjects interesting to horticulturists. A large number of new members were added to the society.'

#### TUXEDO HORTICULTURAL SOCIETY.

The annual business meeting of the Tuxedo Horticultural Society was held in the Firemen's Club on Wednesday evening. January 6. President David McIntosh in the chair. There was a large attendance of members present. The treasurer read his report for the year 1914, which was very satisfactory, and showed the society to be in good condition financially.



Burpee's Annual for 1915

tells the Plain Truth about Burpee-Quality Seeds. It is mailed free. Write for it today,—"Lest you forget." A postcard will do. W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia.

as follows: President, Frederi k Rake: vice- | Sorosiek cultural certificate for Cauliflower, president, C. Davidson; treasurer, Simon Hilmers; secretary, Thos. Wilson. Execu-Hilmers; secretary, Thos. Wilson. Executive Committee—Messrs. Tansey, Millar, J. Davidson, Barth, Sheppard, president and secretary. After the usual business was finished we adjourned to the bowling alleys and enjoyed three hours bowling, some of the boys putting up good scores, after which we sat down to a fine supper and satisfied the inner man amid a nice social evening spent with speeches, songs, recitations and good stores.

THOS. WILSON, Secretary.

#### TARRYTOWN HORTICULTURAL SOCIETY.

The annual meeting of the Tarrytown Horticultural Society was held at Tarrytown Thursday evening, December 31, President Elliott presiding.

This being Carnation night, a fine display of cut blooms was exhibited. First prize, for three varieties, 6 of each, was awarded to A. Golding (Superintendent D. G. Reid). who also received certificate of merit for a vase of Princess Dagmar and cultural certificate for a vase of Mignonette. Honorable mention was given to Mr. J. W. Smth, Scott Brothers, A. Weeks and M. F. Ross for other exhibits of Carnations. A fine vase of Euphorbia was staged by Mr. Weeks, which received a cultural certificate.

The following officers were elected for the coming year; W. Jamison, president; J. Featherstone, vice-president; E. W. Neubrand, secretary; C. J. Weeks, treasurer; Thomas A. Lee, presiding secretary. Many valuable points were brought out on the cultivation of Carnations through the discussion which followed the judging.

The exhibit for next meeting will be flowering plants in not more than seven pots.

The annual dinner will be held at Florence Inn January 12 at 7 p. in. T. A. LEE, Pres. Sec'y.

#### OYSTER BAY HORTICULTURAL SOCIETY.

The December and annual meeting of the Oyster Bay Horticultural Society was held in Fireman's Hall, Oyster Bay, L. I., on December 23, 1914. About thirty members were present and Mr. John T. Ingram pre-

Communications were read offering prizes for the summer shows, Mr. J. Roscoe Raynor \$5 to be used at the discretion of the Society; Mr. John T. Ingram offering \$10 for collection of outdoor roses, one each of eighteen varieties: Mr. H. C. Smith \$5 to be used at the discretion of the Society.

The Dinner Committee reported the dinner held at the Oyster Bay Inn on December 17 as a great success socially and financially.

Mr. Robinson, Mr. Duthie and Mr. Walker were appointed as a special committee to buy books on gardening, etc., to start a cir-

culating library.
Mr. Chas. Mills was elected an active member.

On the monthly exhibits the judges made the following awards: First prize, vase of six Antirrhinums, Mr. F. Kyle; three Celery, Mr. Jas. Duthie; fifty Violets, Mr. Jas. Duthie; Mr. Jas. Duckham, honorable men-The election of officers for 1915 resulted tion for Spiraea, Philadelphia; Mr. John

Very faverable reports were made by the officers and accepted as read.

The election of officers for 1915 resulted as follows: President, Jos. Robinson; vicepresident, Jas. Duckham; treasurer, H. G. Vail; financial secretary, F. Gale; secretary, Andrew R. Kennedy; trustee for three years, A. Walker; Executive Committee— John Sorosick, F. Kyle, A. Patton, John T. Ingram. F. Gale, A. Dawson, G. De Graff.

All officers were duly installed and made

appropriate speeches.

Exhibits for the next meeting, to be held Wednesday, January 20, 1915, twenty-five sprays of Sweet Peas, one pot of Cineraria and six stalks of Rhubarb.

After meeting adjourned all partook of cigars and refreshments provided by the Executive Committee.

Respectfully submitted, ANDREW R. KENNEDY, Secretary.

#### MEETING EXECUTIVE COMMITTEE AMERICAN ROSE SOCIETY.

The Executive Committee of the American Rose Society had a full meeting at the office of Traendley & Schenck, in New York City, on the 14th.

Mr. Thomas Roland, on behalf of the Massachusetts Horticultural Society extended an invitation to the American Rose Society to hold their annual exhibition and meeting in Boston on March 25, 26, 27 and 28, the same being accepted.

The exhibit in pots and tubs to be made on the 25th and cut roses to be staged on Friday, the 26th. The committee to act with the Massachusetts Horticultural Society in preparing a premium list are: Louis J. Reuter, Westerly, R. I.; Thomas Roland,

# THE ANDORRAWA

of growing shade trees, evergreens and shrubs is to transplant again and again, with the greatest care and skill, so that the specimens produced by the Andorra way will give beautiful effects from the moment they are planted around your house or over the estate.

Our booklet, "Distinctive Trees and Shrubs," shows the advantages of large sized Maples, Lindens, Oaks, Spruces, Hemlocks, many desirable Shrubs, Roses and Hardy Perennials. Write for a copy-we will send it on request.

#### Andorra Nurseries

Wm. Warner Harper, Prop.

Philadelphia, Pa Box O, Chestnut Hill



Nahant, Mass., and Alex. Montgomery. Natick, Mass.

A special committee was appointed to solicit premiums, and is composed of the following: Louis J. Reuter, Westerly, R. I.; E. Allen Peirce, Waltham, Mass.; Eber Helmes, Montrese, Mass.; S. S. Pennock, Philadelphia, Pa.; Wallace R. Pierson, Cromwell, Conn.; Frank Traentley, New York City; Patrick Welsh, Boston, Mass.; E. G. Hill, Richmond, Ind.; August F. Foehlmann, Morton Grove, Ill.; William F. Kasting, Buffalo, N. Y.

Vice-President Pyle movel the consideration of the appointment of committees for governing Rose Test Gardens, and the following committees were appointed:

The Central-Rose Garden Committee are: Alex. Cummings, Jr., chairman, Cromwell, Conn.; Thomas N. Cook, Watertown, Mass., and Wallace R. Pierson, Cromwell, Conn. The Committee for the Washington Test Gardens are: Robert Pyle, chairman, West Grove, Pa.; Admiral Aaron Ward, Roslyn, N. Y., and Charles F. Tansill, Washington, D. C. The Committee for the Cornell Test Gardens are: A. C. Beal, Ithaca, N. Y.; John Watson, Newark, N. Y., and Rev. Dr. Mills, Syracuse, N. Y. The Committee for the Hartford Test Gardens is John Huss. chairman, Hartford, Conn., and for the Minneapolis Test Gardens Theo. Wirth, Superintendent of Parks, Minneapolis, Minn.

Upon motion it was resolved that in recognition of the action of the Syracuse Rose Society in becoming affiliated with the American Rose Society with its over 300 members the president of the Syracuse Rose Society, Rev. Dr. E. A. Mills, be chosen an honorary vice-president of the American Rose Society. Carried.

The annual bulletin has been started and the intent is to get out the best annual report that has yet been issued. The secretary reported this work well under way,

The number of members of the American Rose Society who belong to the Society of American Florists and Ornamental Horticulturists is 104, and this number entitles the American Rose Society to appoint one of its number as a director on the board of the S. A. F., and who would be the president-Wallace R. Pierson in this case.

BENJAMIN HAMMOND, Secretary,

#### NEW JERSEY FLORICULTURAL SOCIETY.

The regular monthly meeting of the New Jersey Floricultural Society was held in the J. O. U. A. M. Hall, Orange, on Mon-day evening, January 4, 1915. The following officers were elected for the ensuing rear:

President, Henry Halbig; vice-president, Arthur W. Jackson; treasurer, Fritz Bergelund; secretary, George W. Strange; Executive Committee—Henry Halbig, Arthur Jackson, Fritz Bergelund, Geo. W. Strange, Edwin Thomas, William Reid, Charles Ashmead, Frank C. Drews, George Wraight, Max Schneider: Arbitration Committee— Frank C. Drews (chairman), William Reid, George Wraight, John Hayes, Dutuck Kindsgrab: Room and Library Committee-John L. Collins, Edw. A. Manda, Arthur Jackson, Edgar Bownee, Emil Panuske; Essay Committee—George W. Strange, Joseph A. Manda, George Wraight, A. A. Thomas, William Reid; Auditing Committee—Frank Drews Emil Panuska, Alfred A. Thomas,

The society decided not to hold an annual dinner. It was also decided best for the society to adapt for the coming year a scale of points, consisting of six classes, viz..

Class 1—Best orchid plant in flower—1st, 7: 2d, 5: 3d, 2.

Class 2—Best vase of 12 roses or more varieties—1st, 7; 2d, 5; 3d, 2.

Class 3-Best vase of 12 carnations -1st, 2d, 5; 3d, 2.

Class 4 Best foliage or flowering plant 1st, 5; 2d, 3; 3d, 2.

Class 5—Best vase of cut flowers any other than above-1st, 5; 2d, 3; 3d, 2.

Class 6 Best bunch of 50 violets or sweet pens -1st, 5; 2d, 3; 3d, 2.

The winners scoring the highest number of points for the entire eight monthly competitions will secure the prizes.

Awards for the evening were as follows: Class 3-Peter Hauck, Jr. (Gardener Max Schneider), 85 points.

Class 4-Peter Hauck, Jr. (Gardener Max Schneider), 65 points.

Class 5-Peter Hauck, Jr. (Gardener Max

Schneider), 75 points. Class 6 Peter Hanck, Jr. (Gardener Max Schneider), 65 points.

Class 6—Mrs. A. J. Moulton (Gardener Arthur Jackson), 65 points.
Class 4—Mrs. Wm. Barr (Gardener Emil

Panuska), 60 points.

Mrs. A. J. Moulton received Highest Recommendations for plate of mushrooms.

GEORGE W. STRANGE, Secretary.

#### CONNECTICUT HORTICULTURAL SOCIETY.

The regular fortnightly meeting of this society was held in the County Building Hartford, Friday evening, January 8, Warren S. Mason, the new president, presiding for the first time. President Mason announced the following committees:

Executive Committee John F. Huss, G. H. Hollister, W. W. Hunt, Oscar F. Gritz-macher, C. H. Sierman.

Publicity Committee-James M. Adams. Edward Brassill, Alfred Dixon.

President Mason exhibited a fine collection of camellias in various colors. Charizenia Illicifolia and Clerodendron Belforni from the conservatories of Mrs. A. A. Pope, of Farmington. Alex. Cumming, Jr., of the Pierson Greenhouses, Cromwell, staged rare specimens of Buddleia Asitica. G. H. Hollister, C. H. Sierman and Frank Roulier were appointed judges and awarded a cultural certificate to each exhibit.

In President Mason's opening remarks to the society as its new president he touched upon several plans for the coming year. chief of which was a spring flower show for the benefit of the Red Cross or some such society. This brought forth much discussion as to the feasibility of the project, and it seemed to be the consensus of opinion that it could be done, and was endorsed with much enthusiasm. It was voted that the executive committee get together and make arrangements for the show, same to be given the last of May or the fore part of June.

Mrs. Wilhelmina Seliger, of Waverly avenue, was elected a life member of the so-ciety in appreciation of her valuable aid to borticulture through her writings over the signature of "Garden Notes" in the Hartford Times.

Several new members were elected. ALFRED DIXOX, Secretary. Wethersfield, Conn., January 12, 1915.

#### OYSTER BAY HORTICULTURAL SO-CIETY'S DINNER.

The annual dinner of the Oyster Bay Hor-Coltural Society was held on December 17 at the Ovster Bay Inn, Oyster Bay, N. Y. It was in the nature of a beefsteak dinner. and the novel menu served was much enjoyed by all who partook of it.

About one hundred members and friends congregated in the dining room when "din-

# SEEDS & BULBS

Our 1915 Spring Catalog is full of real Garden · · · help

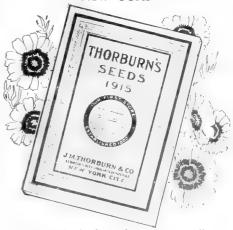
TE prepare our seed catalogue each year with the single thought of making it of service to you in the selection of the right flowers and vegetables for your garden, and in their planting and care.

We have been helping our customers to make successful gardens for more than a hundred years. We have learned a good deal about it, as you will see from the book.

It will be sent free to anyone who has a garden or wants one.

> Drop us a postal today. Your copy is now waiting for you.

J. M. Thorburn & Co. 53U Barclay St. through to 54 Park Place New York



Just to look through its pages will make you long for spring to come

### IOSEPH MANDA Orchid Specialist

11 Bb. 106.76 b. +

0 00 000 tills .i. .

West Orange - New Jersey

ner is ready" was announced. After the din ner was served President John T. Ingram introduced M. C. Ebel, of Madison, N. J., as the toastmaster.

After presenting President Ingram with a handsome smoking set on behalf of the Oyster Bay Society, in appreciation of his successful administration during the past year, the toastmaster called on James Duthie to respond to the toast of "The Gardener," which he did in an admirable

A long list of speakers followed, among whom were Father Kennahan, who in his remarks alluded to the part that the flowers took in shaping the nature of mankind. Representative Harry Howard responded to the toast "Associate Members," L. C. Dis-brow, "Local Press." W. D. Robertson, "National Association of Gardeners." Andrew Kennedy, "The Sporting Seedsmen." Sperling, "Bulbs That Grow." John John Hav "The Traveling Seedsmen." Charles Plum, "Horticultural Past and Present." Others among the representative local business men present called on were: R. W. Deville, John Burke, John Birmingham, G. B. Powers, John Remson.

During the evening Toastmaster Ebel presented Frank Petroccia with the Stumpp & Walter Company's cup won by him at the Fall show with an exhibition of a fine col-

lection of vegetables.

Excellent instrumental and vocal talent were provided. When the members finally arose to join in "Auld Lang Syne" it was the unanimous opinion of those present, who had attended the previous dinners of the society, that it was the most successful ever

#### TARRYTOWN HORTICULTURAL SO-CIETY'S DINNER.

Despite the stormy weather a large attendance gathered at the eighteenth annual dinner of the Tarrytown Horticultural Society at Florence Inn. Tarrytown, N. Y., on Tuesday evening, January 12. The dinner was said to be the most successful ever given by this society. The dining room was beautifully decorated with the floral art. some fine blooms and specimen plants mak-

ing up the table decorations.

After the dinner, which was an excellent one, was over President William Jamison of the society introduced F. R. Pierson, who reviewed the history of the Tarrytown Horticultural Society and its past and present services to the village of Tarrytown, following which he introduced John F. Dinkle as the toastmaster of the evening. A number of public men present were found to be notable after-dinner speakers, who held the interest of their audience.

Harry A. Bunyard, president of the New York Florists' Club; John W. Everitt, president of the National Association of Gardeners, and others, representing horticultural pursuits, were among the speakers. Among the visitors present from the sister societies were Ernest Westlake. John Jones, of the Nassau County Horticultural Society; Arthur Jackson, George W. Strange, of the New Jersey Horticultural Society: F. Goldberg, J. Newman, of the Dobbs Ferry Horticultural Society. The local gardening fra-ternity was well represented by many members of the society who were present.

# HORTICULTURAL SOCIETY.

There was a very large attendance of members at the regular monthly meeting of the Westchester and Fairfield Horticultural society, held in Greenwich, Conn., Friday evening, January 8. A feature was the installation of the newly elected officers for the ensuing year. The names are as follows: President, W. J. Sealey; vice-president, Wm. Morrow; treasurer, Robert Wilhamson; secretary, J. B. McArdle; corresponding secretary, P. W. Popp. Executive Committee-Jas. Stuart, Ewen McKenzie, Thos. Ryan, John T. Burns, Jas. Foster. The omcers each in turn assured the members of the society of their best efforts in the society's welfare. The finances of the society are in a very gratifying state. This, in connection with the ever increasing interest of our members and the adoption of several additional features of interest that are being contemplated, assures the Westchester and Fairfield Society a very enviable place in the horticultural world. We wish place in the horticultural world. at this time to thank our many friends for the generous support rendered to us in the past, and hope to merit a continuation of the same in the future. Two new members were elected at this meeting and several proposals for membership were received and filed. It was decided to hold the annual summer exhibition in June, the dates and location to be decided later.

A committee was appointed to complete final arrangements for the annual entertainment and dance to be held in February, the date and location of the hall to be an-

nounced at an early date.

The lecturer scheduled for the evening, Mr. Neil Morrow Ladd, president of the Greenwich Bird Protective Society, entertained the members with a very interesting and instructive lecture on the methods of attracting the wild birds about the home grounds. The speaker used some very fine colored views to illustrate the various methods of winter feeding, as well as a number of clever devices for sheltering the birds during the severe weather. A rising vote of thanks was accorded the speaker for the very timely and enjoyable lecture. subject is a very broad one and worthy of the serious consideration of all horticul-

The competition for the secretary's prizes for the best eighteen carnations, three varieties of six each, caused a truly markable display to be staged. All the older favorites were on exhibition as well as all of the best varieties of recent introduction, and all of a quality that was not to be surpassed. The competition was very keen and the decisions were close. judges awarded the first prize to Thomas Ryan, second prize to John Canning, third prize to Robert Grunnert. The remaining competitors were each awarded a very hearty vote of thanks for their splendid display. In the non-competitive classes the judges made the following awards: To Samuel Bachelor, manager of the Amohat Greenhouses at Mamaroneck, N. Y., cultural certificate for a magnificent vase of carnation "Gorgeous," and who was also highly commended for each of several very fine vases of carnations. Display of carnations from Thomas Aitcheson, vote of thanks. Vase of seedling carnations from A. Wynne, highly commended. Vase of assorted carnations from Thomas Ryan, vote of thanks. Vase of carnations "Mrs. Darlington," a variegated yellow and pink sport of Mrs. C. W. Ward, from P. W. Popp, was highly commended. Vase of Killarney roses from Carl Hankenson, vote of thanks. Alex. Marshall was very highly commended for a very fine vase of orchid blooms. Robt.

THE WESTCHESTER AND FAIRFIELD Williamson was highly commended for a specimen plant of Cypripedium Insigne. W. Popp was highly commended for a specimen plant of Buddleya Asiatica. Bunch of rhubarb and plate of tomatoes from Robert Grunnert received a vote of thanks.

A feature of the next meeting, to be held February 12, will be a lecture entitled "Conferous Trees," by James Kelly, of New Canaan, Conn. The speaker is well qualified and we anticipate an interesting talk.

For the next meeting Mr. John Canning offers a cash prize for the best vase of roses,

any variety.

Members of the society will please take notice that the monthly meetings will start promptly at 7:30 o'clock p. m., thereby enabling all those who come from a distance to remain at least throughout the business session. A bright and prosperous New Year to all. P. W. POPP,

Corresponding Secretary.

#### NORTH SHORE HORTICULTURAL SOCIETY.

At the last regular meeting of the North Shore Horticultural Society, Manchester, Mass., Frank S. Gifford's lecture on "Breeds of Cattle" was both interesting and instruc-With the aid of a map of Europe, tive. Mr. Gifford traced the course of various breeds of cattle from Egypt and the north of Africa northward and westward through Europe and across to Canada, the United States and the South American republics.

A silver medal was awarded to Vice-president E. H. Wetterlow for six seedling primulas, a cross between Primula Chinensis fimbriata and Primula stellata, all mauve in color, the same as the parent plants. All the plants were well grown. The foliage was of the stellata type, with long stems, and the flowers were large, of the fimbriata type. A certificate of merit was awarded to Ernest Townsend for a fine plant of Cypripedium insigne in a 10-inch pot.

The sixteenth annual banquet of the soenty will be held in the Town Hall, in this city, January 27, at 6:30 p. m. The banquet will be served by Jesse A. Dill, of Melrose, and will be followed by an entertainment by professional talent, and dancing from 10 to 12 m. Tickets will be \$1.50 each, and can be obtained from the chairman of the committee, William Till, Magnolia. Mass. Any visitors in this vicinity will be given a cordial welcome.

The feature of the next meeting will be a stereopticon lecture on gladioli by B. Hammond Tracy, of Wenham.

Corresponding secretaries of the local societies are invited to send reports of their meetings. Those received by the 15th of the month will be published in the current issue.



# Unlimited Variety of Cups and Trophies at the International Stores



Unlimited because eleven great factories are constantly supplying us with the newest ideas, in designs, shapes and sizes of Sterling and Silver Plate.

This is one of the reasons so many people come to the *International* Store to select their trophies.

Whether for important or unimportant events there is so much more satisfaction in choosing from among wide selections.

We are always glad to show you our great stock whether you buy or not, so come in and see us.

# INTERNATIONAL SILVER COMPANY

SUCCEEDING The MERIDEN Co. ESTABLISHED 1852
49-51 W. 34th St., Through to 68-70 W. 35th St., New York

IF you have not received a copy of our new illustrated Seed Catalogue, 1915 Edition, please send us your name and address.

We have made extensive alterations in our Seed and Horticultural Departments, and with our new annex at 54 Vesey Street, we will have the *largest Horticultural Auction Rooms* in the World.

We would be pleased to mail you weekly copies of our Auction Catalogues upon request.

# THE MACNIFF HORTICULTURAL CO.

54 and 56 VESEY STREET -:- -:- NEW YORK

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection. We can prove it.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55 5 lb. package making 150 gallons,

exp. extra 1.80

25 lb. package making 750 gallons,

50 lb. package making 1,500 gallons, exp. extra 12.50 100 lb. package making 3,000 gallons, exp. extra 20.00

Barrels from 250 to 300 lbs., 18c. per lb.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon.  $1\frac{1}{2}$  gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

## BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufac ture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.



excite the admiration of evyour lawns by top dressing

the beauty of

DIAMOND BRAND COMPOST Well Rotted Horse Manure Dried—Ground—Odorle

It is free from weed seeds, largely HUMUS and rich in plant foods, it will produce deep root growth which will enable the grass to with stard the hot dry mouths of Summer For new lawns it is invaluable Excellent results can be had when used in the flower and vegetable witch is Put up in bags 100 lbs. each.

H'rite for circular "E" and frices

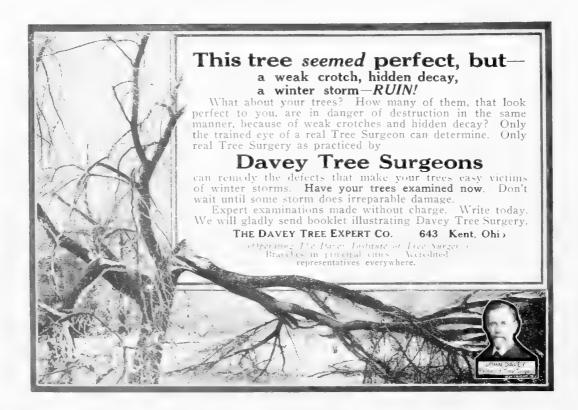
NEW YORK STABLE MANURE CO. 273 Washington St., Jersey City, N. J.

# lo Adulteration-No



THIS mark stands for the clean-est Sheep Manure in America -no pig manure, no adulteration-nothing but Sheep Manure, dried and pulverized, and all weed seeds killed. We guarantee it absolutely clean. Shipped in 100 lb. bags. Write for prices, delivered.

NATURAL GUANO CO., 805 River St., Aurora, Ill.



1. NOTICE IN A CONTINUE DE LE SALE DE LA CONTINUE DE LA SECUCION DEL SECUCION DE LA SECUCION DEL SECUCION DE LA SECUCION DEL SECUCION DEL SECUCION DE LA SECUCION DE LA SECUCION DEL SECUCION DEL SECUCION DE LA SECUCION DEL SECUCION DEL SECUCION DE LA SECUCION DEL SECUCION DE LA SECUCION DEL SECUCI

# **BOBBINK & ATKINS**

"WORLD'S CHOICEST NURSERY AND GREEN-HOUSE PRODUCTS" GROWN IN AMERICA

Several years of constant thought and effort places us in a position to fill orders for all kinds of Nursery and Greenhouse Products for Outdoor Plantings and Interior Leconations, independent of European Importations. Among our many attractions growing in our 300 acress of highly cultivated Nursery are large quantities of the following special-

ROSE PLANTS. Hybrid Tea Perpetual and other varieties.

roalibit 4.8651 callillits a calculations are care to the test

EVERGREENS and CONIFERS.

SHADE TREES, FLOWERING SHRUBS and JAPANESE MA-

HARDY OLD - FASHIONED PERENNIAL PLANTS.

BAY TREES and large leaved decorative plants.

PEONIES, German and Japanese IRIS.

DWARF, TRAINED and OR-DINARY FRUIT TREES, STRAW-BERRY PLANTS and other small

OUR NEW HYBRID GIANT FLOWERING MARSHMALLOW.

PALMS and FLOWERING PLANTS for Interior and Ex-terior Decorations

HARDY VINES and CLIMB. ERS.

CALIFORNIA PRIVET, BER-BERIS and other Hedge Plants

BOXWOOD and other large leaved Evergreens

DAHLIAS, CANNAS and other

Bulbs and Roots.

JAPANESE FLOWERING CHERRY and CRAB APPLE TREES.

RHODODENDRONS Hardy Hybrids, Catawbiense and Maximum varieties.

PLANT TUBS. WINDOW BOXES, ENGLISH GARDEN FURNITURE and RUSTIC WORK.

The above are described and priced in our Illustrated General Catalog No. 45, mailed upon request VISTFORS are made welcome to inspect our Products, which is very important before placing orders.

"WE PLAN AND PLANT GROUNDS AND GARDENS EVERYWHERE.

CORRESPONDENCE INVITED.

NURSERYMEN, FLORISTS AND PLANTERS RUTHERFORD, N. J.

Summer commence and a commence of the commence

1915

SEE THAT YOU RECEIVE OUR NEW ILLUSTRATED CATALOGUE

ALSO OUR NURSERY CATA-LOGUE OF SHRUBS.TREES.PLANTS AND OTHER NURSERY STOCK



Write for our catalogue which will be mailed free on request

W. E. Marshall & Co.

166 West 23rd Street

នឹងភាពជាពេល មានប្រជា និងសម្រាម ប្រជា ប្រជា ប្រជា

NEW YORK



HEN it Houses, come to

Hitchings of Compan

General Offices and Factory-ELIZABETH, N. J.

New York 1170 Broadway

Beston 49 Federal St.

派

# INTERNATIONAL

# FLOWER SHOW

Grand Central Palace. New York March 17-23, 1915

Under the Auspices of

Horticultural Society of New York New York Florists' Club

Schedules and All Particulars From John Young, Sec'y, 53 W. 28th St., N. Y.

> Mr. Gardener, are you preparing to exhibit at this Show? We want your co-operation and exhibits.

# LAWN MOWER Combination Mower and Roller

38-inch cut \$400

This newest machine is larger and more powerful than the 1914 model, and carries many improvements that will interest those who have the care of large lawns—golf courses—parks, etc.

A 5 horse power motor (S. A. E. rating) with 6 adjustable cutter blades, 38 inches wide, and a roller 15 inches in diameter, it cuts 8 acres per day at a speed of one to  $4\frac{1}{2}$  miles per hour, at an operating cost of only 30 cents per day. It climbs 35% grades, cuts closely and evenly, is easily guided around walks, trees and shrubbery, and rolls the turf as well as cutting the grass, leaving the lawn in perfect condition. Neither hand propelled nor horse drawn mowers can compete with this machine in satisfactory results, economy of operation and all-round efficiency.

The **IDEAL JUNIOR**, a smaller power mower, for \$225.

Write for catalog and complete description of various sized power mowers

### IDEAL POWER LAWN MOWER CO.

R. E. Olds, Chairman 419 Kalamazoo Street
LANSING, MICHIGAN



This is the time to Spray your
Fruit and Ornamental
Trees with

# **SCALINE**

For San Jose, Oyster Shell and all scale on trees and hardy stock. An effective remedy for red spider on evergreens.



The Recognized Standard Insecticide

for green, black, white fly, red spider, thrips, mealy bug and soft scale. Can be used on tender plants.

## **FUNGINE**

For mildew, rust and other blights. It is perfectly safe to apply to fruits and vegetables, as it is non-poisonous. An infallible remedy for rose mildew, carnation and chrysanthemum rust.

## **VERMINE**

For eel, cut and wire worms working in the soil. It can be applied to all vegetation.

## **NIKOTIANA**

A 12% Nicotine solution properly diluted for vaporizing, fumigating and spraying.

# "40% NICOTINE"

A concentrated nicotine for vaporizing, fumigating and spraying.

If you cannot obtain our products from your local dealer, send us your order with remittance and we will ship immediately through our nearest agent

# Aphine Manufacturing Co.

Manufacturers of Agricultural Chemicals
MADISON, N. J.



# By Way Of Suggestion

Why don't you do that?

where and we'll be there.

New York, 42d St. Bldg.

Our Engineering De-

partment will co-oper-

ate with superintendents of Parks and Pri-

vate Grounds and

Landscape Gardeners.

We will be glad to as-

sist in solving your

fence problems with-

out charge.

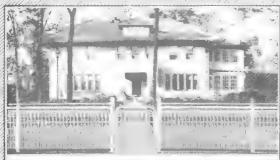
Tremont Bldg. Chicago, Rochester. Rookery Bldg.

Granite Bldg. Philadelphia Franklin Bank Bldg. Cleveland, Swetland Bldg. Toronto-12 Queen Street, East.

Jord & Burnham 6.

FACTORIES

Irvington, N Y Des Plaines, Ill



# CYCLONGWANK RNAMENTAL Lawn and Park Fence

# FOR PUBLIC PARKS—COUNTRY CLUBS —PRIVATE GROUNDS

Harmonizes with the natural beauty of public parks or private grounds and affords substantial, lasting protection.

No matter how handsome your home, in city, town or country, Cyclone-Waukegan Fence will give it an added air of beauty and prosperity not possible with wooden fence.

### CYCLONE WAUKEGAN FENCE

is built in various artistic designs, of heavily galvanized wire, closely and firmly spaced. It is easy to erect on wood or iron posts and adjusts itself gracefully to uneven ground.

> We manufacture also Flower Bed and Lawn Borders, Trellises, Tennis Court Back Stops, Tree Guards, etc.

Handonch Illustrated Catal request.

CYCLONE FENCE COMPANY WAUKEGAN, ILL



# 

(C) FOR SERVICE SERVICES



# Choice CARNATION Stock POT PLANTS

WING to the many demands made upon us from private estates during the past years, we are this year prepared to make delivery of young stock from two-inch pots of the varieties listed below. Stock to be all of COTTAGE GARDENS QUALITY and packed in the most careful manner. Deliveries to begin March 1st. Stock will be sent by either express or parcel post. If by parcel post, transit charges will be added to the bill. Order early to insure prompt delivery.

## **MATCHLESS**

Our own unsurpassed white, disseminated last year. It is making good in every way.

From 2-inch pots, \$1.50 per dozen \$10.00 per hundred

#### CHAMPION

Another of the recent introductions that is "making good." Disseminated by Dorner, it easily leads the reds.

From 2-inch pots, \$1.50 per dozen \$10.00 per hundred

#### GOOD CHEER

Dorner's introduction for 1915. A dark pink that is unsurpassed for large production.

From 2-inch pots, \$2.50 per dozen \$20.00 per hundred

#### **ALICE**

The latest introduction of the incomparable Peter Fisher. A flesh pink variety, the largest producer Fisher has sent out.

From 2-inch pots, \$2.50 per dozen \$20.00 per hundred

## PRINCESS DAGMAR

Patten's beautiful crimson. A flower of wonderful size and stem. Introduced last year.

From 2-inch pots, \$1.50 per dozen \$10.00 per hundred

## MRS. C. W. WARD

Description of this popular pink is unnecessary. One of our own introductions.

From 2-inch pots, \$1.00 per dozen \$5.00 per hundred

### BEACON

Another variety a description of which is needless. Introduced by Peter Fisher. The most popular red

From 2-inch pots, \$1.00 per dozen \$5.00 per hundred

# **ENCHANTRESS**

The most easily grown carnation of all. Introduced by Fisher. Flesh pink.

From 2-inch pots, \$1.00 per dozen \$5.00 per hundred

COTTAGE GARDENS CO., Inc.

CARNATION SPECIALISTS

QUEENS " NEW YORK

- 1 or 1 to 10 to

# SPECIAL NOTICE to Gardeners and Superintendents



See that you receive our 1915 Catalogue. It is one of the most descriptive and complete Seed and Horticultural Supplies Catalogues ever printed. Drop us a postal and we will cheerfully mail you a copy. When in Philadelphia, don't fail to see us. Visitors are always made welcome to inspect our stores and nurseries. Correspondence invited.

PHILADELPHIA'S LEADING SEED HOUSE

HENRY F. MICHELL CO.

salida III da 11 III III da 11 III d

Philadelphia, Pa.

518 Market Street Philipper Street Nurseries and Greenhouses, Andalusia, Pa

# **BOBBINK & ATKINS**

"WORLD'S CHOICEST NURSERY AND GREEN-HOUSE PRODUCTS" GROWN IN AMERICA

Now following of constant togeth and entertiplaces us in a position to fill order of all kinds of Notes, and Greenhouse Products for Out con Planting and Indoor Free for and pendent of European Importations. Among the farm all these entering in or 30 acres of applied entity (for Xursery are Fig. 5) and the of the following special fors.

ROSE PLANTS, Higher Tea Perjetual and other varieties RHODODENDRONS. Diedish Har Higher Carlowiense in Waximia, varieties SHADE TREES, FLOWERING SHRUBS and JAPANESE MA-PLES.

PLES. HARDY

HARDY OLD - FASHIONED PERENNIAL PLANTS. DWARF, TRAINED and OR-DINARY FRUIT TREES, STRAW-BERRY PLANTS and other start

BAY TREES and large braved corative plants
DAHLIAS and whom Palls ar

DARLIAS EVERGREENS. CONIFERS AND PINES. What are seed on Nuscry are plated with

ese IRIS.

PLANT TUBS, WINDOW BOXES, ENGLISH GARDEN FURNITURE and RUSTIC WORK.

WINDOW

HARDY VINES and CLIMB-

BOXWOOD and other large leaved Evergreens

JAPANESE FLOWERING CHERRY and CRAB APPLE TREES.

CALIFORNIA PRIVET, BERBERIS and other Hedge Plants. PEONIES, German and Japan-

LAWN GRASS SEED. — Our Ratherford Lark Lawn Mexture has given satisfaction every where

OUR NEW HYBRID GIANT FLOWERING MARSHMALLOW WILL BLOOM EVERYWHERE.

The above are described and priced in our Hlustrated General Catalog No. 45 marked up or request VISITORS are made welcome to inspect our Products, which is very important before placing orders

"WE PLAN AND PLANT GROUNDS AND GARDENS EVERYWHERE."

CORRESPONDENCE INVITED.

NURSERYMEN, FLORISTS AND PLANTERS

RUTHERFORD, N. J.

We are growing, for your use, some excellent

# Standard Heliotrope

Stems From  $2\frac{1}{2}$  to  $3\frac{1}{2}$  Feet

Price, \$1.00 to \$2.00 Each

We grow Bedding Plants in quantity

Let Us Know Your Requirements

AN PIERSON INC.

# HARDY ROSES

We will be in a position to supply an exceptionally fine lot of Hardy Roses this Spring, all strong 2-year-old that will bloom this season.

#### HYBRID PERPETUALS

20 of the best varieties. A selection from several hunareds.

## HYBRID TEA OR EVER-BLOOMING

V selection of 45 varieties that have been tested and found to be the very best for continuous blooming.

#### CLIMBING

All the best varieties worth growing

SWEET BRIAR, MOSS, POLYANTHA AND STANDARD OR TREE ROSES.

> Fer mil det 's, write for our illustrated Nursery Catalogue.

# W. E. MARSHALL & CO. SEEDS - PLANTS - BULBS

166 West 2310 St., New York

JOHN SCHEEPERS & CO., Inc.

2 STONE STREET

**NEW YORK** 

FOR HIGHEST GRADE BULBS

i nogovjet i nacenhje, i reanini i in

- Mithellar I field - I falcibut, m 1.16.5.

# Suffragette Cosmos

It blossoms in early July till frost, and no variety of fall cosmos surpasses it in size of blossoms, long stems, or luxuriance of bloom.

A long list of high-class gardeners, everyone knows them, say: "It is the best cosmos we ever saw; it takes the place of summer and fall varieties."

Send for booklet and see who they are and what they say about the "Suffragettes." Plants only. Your money back if you are not entirely satisfied.

### EDWARD LEWIS

Cosmos Specialist

DERBY, CONN.

# EXTERIOR DECORATIONS

IN EVERYTHING WORTH PLANTING

This is the title of a New Garden Book we shall be pleased to send you without charge if interested.

We Specialize in Hybrid Rhododendrons, Choice Evergreens, Shade Trees, Shrubs, Rhododendron Maximum and Everything Worth Planting. Our business is built on a sure foundation—QUALITY FIRST.

Let us quote your requirements for Spring, 1915.

f. a. Kelsey Narsery Company

O BROADWAY

NEW YORK

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

# KENNEDY & HUNTER

### **SEEDSMEN**

IF YOU HAVE NOT RECEIVED OUR 1915 CATALOG, WRITE FOR IT NOW

156 West 34th Street One block from New York

"ONLY THE BEST"



# MEEHANS' Handbook of Hardy Plants

is now ready for you

A practical guide for the gardener—unlike any other catalog. Over a hundred pages, profusely illustrated. Describes many new and care plants.

Contains special departments devoted to plants suggested for special purposes and notes low prices on larger quantities simplifying your purchasing problems.

Shall we send you a copy, Free? Write us today

#### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65 Germantown, Phila.

# COMPETENT GARDENERS

**q** The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

**NEW YORK CITY** 

# The Advertisers' Opportunity Comes Next Month Our Special Boost Number

THE MARCH ISSUE will provide it

WHAT SPACE SHALL WE RESERVE FOR YOU?

25 Se la composta a appropriata de la composta del composta del composta de la composta del la composta de  la composta de la

ADVERTISING FORMS CLOSE MARCH FIRST

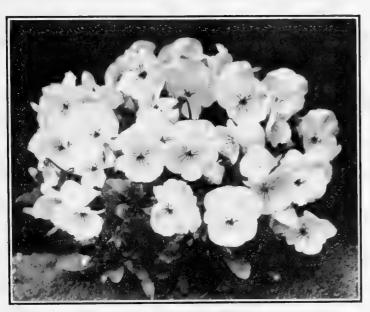
EDITORIAL OFFICES MADISON, N. J.

THE CHRONICLE PRESS, Inc. Publishers Gardeners' Chronicle of America

ADVERTISING OFFICE 286 FIFTH AVE., NEW YORK, N. Y.

and a summer and the second second to a summer and a

# SUTTON'S VIOLAS from Seed



The lovely delicate coloring of this valuable bedding plant has endeared it in the heart of all Garden lovers, but hitherto the cost of purchasing a sufficient number of plants has debarred it from many gardens. We are, however, able to offer, for a very moderate sum per packet, seed of varieties that will produce hundreds of plants true to color, and thus bring it within the reach of all.

	Per P	acket
Sutton's	Snow White	24c
Sutton's	Primrose	24c
Sutton's	Bronze Shades	24c
	Black Knight	
	Perfection (bluish mauve) 24c and	
Sutton's	Admiration (deep violet) 24c and	12c
Sutton's	Golden Sovereign24c and	12c
	Purple Queen24c and	12c
Sutton's	Mixed (including the finest	
	varieties)24c and	12c

Collection of the above mentioned \$1.25 varieties, one packet of each \$1.25
ALL FLOWER SEEDS VALUE \$2.50 MAILED FREE.

Sutton's Garden Seed Catalog containing full particulars of all the best Flower and Vegetable Seeds, etc. (beautifully illustrated), mailed free for 35 cents, which will be refunded on receipt of an order amounting to not less than \$5. Address your orders to

# SUTTON & SONS The King's Seedsmen

Reading, England

or to Messrs. Winter, Son & Co., 66 Wall Street. New York, their sole agents for the United States east of the Rocky Mountains (with whom is associated Mr. H. S, Colt, the famous Golf Course Architect).

IF you have not received a copy of our new illustrated Seed Catalogue, 1915 Edition, please send us your name and address.

We have made extensive alterations in our Seed and Horticultural Departments, and with our new annex at 54 Vesey Street, we will have the *largest Horticultural Auction Rooms* in the World.

We extend to all our friends and patrons a cordial invitation to visit our new Auction Annex.

# THE MACNIFF HORTICULTURAL CO.

54 and 56 VESEY STREET -:- -:- NEW YORK

# "FXCELSIOR" RUST PROOF

# Tree Guards

If a horse gets at one of your trees, even for a few minutes, the damage is done. Your loss is irreparable, yet it could have been prevented.

# Don't Take Chances With Your Beautiful Trees

Excelsior Rust Proof Tree Guards give full protection and do not detract from the beauty of the trees. The Guards last many years, because heavy galvanizing prevents rust. There are several styles—select the one that suits. Write us for Catalog J of Excelsior Rust Proof Tree Guards, Bed Guards, Trellises and Fence.

#### WRIGHT WIRE COMPANY

Worcester, Mass.



# Birds Save Gardens

Native Birds will not only brighten your gardens; they work for you in destroying insect life.

Wren House Price \$5.00 My free book tells how to win Wrens, Bluebirds, Purple Martins, Tree Swallows, Flickers, etc., to live in your garden. I have won hundreds of birds and have helped thousands of others to win birds. If you want birds, write me.

I build bird houses, shelters, baths, etc. Among them Dodson Purple Martin House—26 rooms and attic. Price \$12—with all-copper roof, \$15. Dodson Bluebird House—Solid oak, cypress roof, \$5. Chickadee or Nuthatch Houses, \$1.50 to \$3.50. Flicker Houses, \$2.50 to \$5. Tree-Swallow House, \$3. Bird Feeding Shelters, \$1.50 to \$10. Bird Baths—Zinc, \$6; Cement, \$17.

The Famous Dodson Sparrow Trap catches, automatically, as many as 75 sparrows a day. Price, \$5. Get rid of sparrows and so help the song birds.

All prices are f. o. b. Chicago. Write for my free illustrated book today

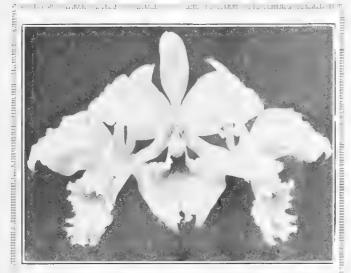
Joseph H. Dodson, 732 Security Bldg., Chicago

(Mr. Dodson is a Director of the Illinois Audubon Society)









Catheya Labista ("W s. Inf.us Riches").

## Do You Grow Orchids?

You will find it most fascinating. sults may be obtained by following a few simple directions. Many of the best known varieties, such as Cattleyas, some Oncidiums, etc., can be successfully grown side by side with other plants requiring the same temperature.

Will gladly furnish any information desired. Visit our greenhouses and we will not only show you our large range of Orchid houses, but also a fine collection of Stove and Greenhouse plants, Palms, etc.

#### JULIUS ROEHRS CO.

Exponential exists and continuous of the continuous exponential exponent continuous at the enterior of their continuous exponential expone

Nurserymen and Florists.

Rutherford, N. J.

# DREER'S GARDEN BOOK FOR 1915

Enlarged to 272 pages and handsomely illustrated with hundreds of photo-engravings, four beautiful colored plates, four duotone plates and gives many cultural notes written by experts. It is brimful of information valuable to both amateur and professional gardeners.

DREER'S GARDEN BOOK is indispensable to every one interested in gardening and offers the newest Roses, best varieties of Dahlias, and largest assortment of Hardy Perennials, Aquatic Plants, Bedding Plants, etc., also Flower, Vegetable and Farm Seeds, Lawn Grass Seeds, Tools, Implements and everything else required for successful gar-

> Write today for a copy, FREE and please mention this Publication.

# HENRY A. DREER

714-716 Chestnut Street

Philadelphia, Pa.



# All Varieties **Thoroughly Tested**

T is the policy of Jas. Carter & Co. to thoroughly test every strain of flower or vegetable. Not until satisfactory results are shown by actual growing are they listed in the Carter Catalog.

That is why Carters Tested Seeds are so reliable and true to description.

If you have not examined the 1915 Carter Catalog— American Edition-write at once for your copy.



CARTERS TESTED SEEDS, INC. 111 Chamber of Commerce Bldg., Boston, Mass.

Branch at Seattle, Wash. In Canada-133 King St. E., Toronto. Branch of Jas. Carter & Co., Raynes Park, England.



# Are the Ones Used On the White House Grounds

OR years, these wondrous Cannas, the summer orchids of Mr. Wintzer's development wondrous have been ordered for the adornment of the President's Residence Grounds. This year's list included many of the very choice ones, like Mrs. Wood-

#### SPECIAL ASSORTMENTS

It just occurs to us that we complet like to have on "White House" secument.

"White House" sectiment. It centures two analy We do seed you ten of each land, for a price for all of

Of course, the is at a sec-stion It you prefer to be eaven on selections, send for on catalog.

It lists over 100 mids, 85 c and an Wintzer's even

# THE CONARD & JONES CO.

SWAS-TEEKA BRAND CANNAS

West Grove. Pa.

# The Contents--- February, 1915

The Spokane Park System John W. Duncan	53	New York's Spring Flower Show	65
Conifers	55	A Substitute for Norway Spruce	66
The Proper Care of House Plants Palmer	56	The Missouri Botanical Garden	
Orchids	57	L. W. C. Tuthill	68
Cattleya Gigas Sanderiana	57	Editorial	75
Dynamite as a Soil Builder	58	National Association of Gardeners' Notes .	76
Making a Vine Border C. E. Carman	59	Among the Gardeners	76
War and Potassie J. J. Johnson	59		76
Vegetable Culture a Worthy Study  Duncan McIntyre	60		77
The Time to Prune Peach Trees	60	The Minneapolis Convention Garden	77
Panama-Pacific Exposition Floral Wall	61	Of Interest to All	77
Color Arrangement in the Flower Garden		American Association of Park Superintendents	78
Jos. Robertson	62	Park Department Personals	78
Pruning Ornamental Shrubs	62	Queries and Answers	79
Making an Azalea Bed	63	Gardeners' Diary	80
Work for the Month of March Henry Gibson	64	Local Horticultural Societies' Notes	81

# STAIGREEN LAWN SEED

For Lawn Making few months in the year are considered as advisable as August or early September. While the proper preparation of the ground, fertilizing, rolling and watering is considered very essential, the mixture of grasses is a very important one and should be given considerable thought.

# 25-Pound versus 14-Pound LAWN SEED

Many low-price Grass Seed mixtures weigh only 14 pounds per bushel. This indicates either a good proportion of chaff or some of the real good varieties in the rough state, not properly cleansed so as to leave only the vital part and less of the chaff or shell. In other words, so many less seeds to the quart or pound that will germinate and grow real grass.

# Why Not Buy the Re-cleaned Kind?

A mixture of grasses weighing 25 pounds per bushel, of high germination and purity, permanent in nature, the varieties carefully proportioned so that they will succeed one another in brightness of foliage, with the result that the lawn, even in its first year, will have a bright, rich green color from early spring until covered by snow.

POUND 40 cts. 5 POUNDS \$1.75 25 POUNDS \$8.00

100 POUNDS \$30.00

One Pound Will Sow a Plot 20 x 20 feet. Sow 80 Pounds to the Acre

Stumpp & Walter 6 30-32 BARCLAY ST.
NEW YORK

# GARDENERS' CHRONICLE

# OF AMERICA

THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

FEBRUARY, 1915.

No. 2.

# Spokane's Interesting Park System

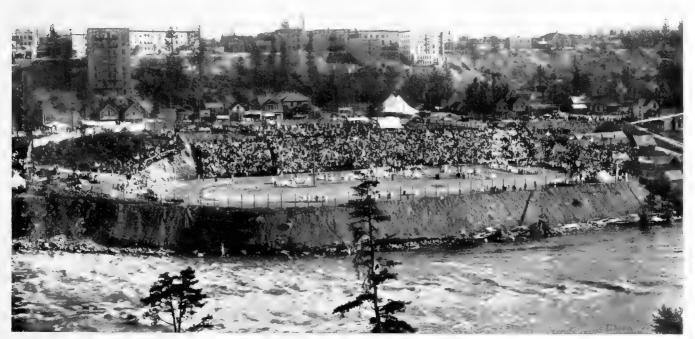
By John W. Duncan,\* Washington.

The city of Spokane lies in a beautiful valley among the pines, on the western edge of the Northern Rockies of the United States. The first settlement was made in 1872, and at the present time it has a population of 132,000.

In the year 1891 Spokane's first public park, known as Coeur D'Alene Park, was donated to the city and for several years after the park area was gradually

seven years of progressive administration, the city has a park area of 1934 acres.

Spokane has been fortunate in having as leader in its park development, Aubrey L. White, to whose broad views and untiring efforts are largely due the wonderful accomplishments that have been attained in the past seven years. Hampered by lack of funds for several years after the creation of the Park Com-



OPENING OF SPOKANE'S STADIUM THOUSANDS OF PEOPLE WITNESSED THE EVENTS ON CHILDREN'S DAY.

increased by donations, without particular regard for future consideration as to locality or public requirements.

It was not until the year 1907, when an amendment to the city charter, creating an independent non-political park board was passed, that any activity was taken in Spokane's Park and Playground System. At that time, when the Park Commission assumed control, there were 173 acres of park lands, and now, after

\*Superintendent of Parks, Spokane, Wash.

mission, it was really not until the beginning of 1912, when a bond issue of \$875,000 became available for park purposes, that any apparent activity was shown in the park work.

Although at first hampered by lack of financial facilities, soon after the creation of the commission the firm of Olmsted Bros. was engaged to make a general survey and report on a comprehensive park system for the city of Spokane. From this scheme the Park Commission went quietly to work, and so thorough

were the methods carried out by its president and others that a large number of donations were secured and considerable suitable property was purchased at reasonable figures.

It has been the endeavor of the commission to secure as much as possible of the close-in properties as would fit into the general scheme, and so well has this been accomplished that, with one or two exceptions, all the districts are taken care of, all having a park or playground within easy reach.

It has been the purpose also, to secure much of the rugged natural lands and river banks, so that as much as possible of the basaltic cliffs and river embankments would for all time be preserved in their most natural condition, a boon to the generations that are to follow.

In the work of development, in reality only a start has been made. It has only been during the past three years that anything comprehensive has been undertaken, but so vigorously has the work been prosecuted that the Park System now boasts of a number of finished neighborhood parks, eight fully equipped playgrounds, and a large number of baseball fields and tennis courts, distributed in different localities throughout the city.

It should be remembered that Spokane lies in a semi-arid district with a maximum annual rainfall of 18 inches, and that as there is little or no rainfall during the summer months, all plantings of trees, shrubs, lawns, etc., therefore have to be watered and no attempt is made at such development without a perfect watering system. This makes construction work expensive, but a few years show the benefit from the cost, for there is no losing of foliage from deciduous trees in mid-summer, so often seen during a dry season in Eastern cities.

It is the purpose of the department to preserve every particular feature that each park may possess, and a brief description of a few of the most interesting features follow:

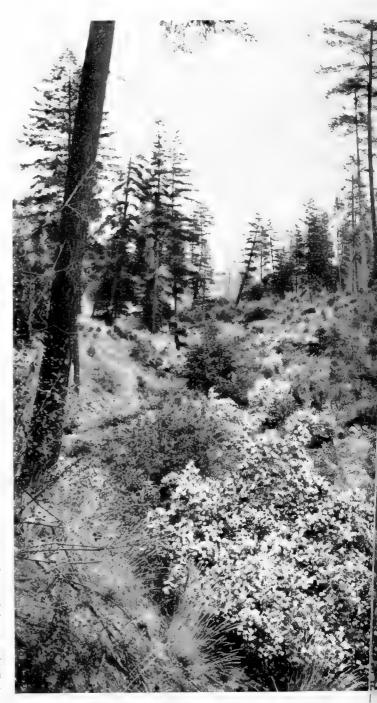
Manito Park, the most popular of our parks, is a beautiful tract of high bluffs and fine rolling knolls and valleys, consisting of about 90 acres, but so far only about one-half has been improved. In this park the Zoo has been located, but space will not permit of its continuance here, and eventually the animal park will be Indian Canyon, perhaps the most artistically natural park of the whole system. At Manito the city greenhouses are also located, a very complete range of modern houses, with a beautiful fronting where the flower gardens are laid out. Manito Park will eventually become a veritable arboretum, for it is intended to gather in it as large a collection as possible of all varieties of trees and shrubs that will stand climatic conditions. Manito Park also contains an old-fashioned garden; also a rose garden; in the latter are grown many of the newer varieties of hybrid tea roses, for which class the superintendent has discarded many of the old hybrid perpetual varieties.

Liberty Park is a natural park of peculiar beauty, situated a little over a mile from the center of the city. Its center is a low depression, said to have been at one time a volcanic crater, while the surrounding slopes have now been covered with many thousands of different varieties of trees and shrubs. At the western end of the park a beautiful pergola effect has been given, surrounding a children's playground and wading pool. Lincoln Park is one of the recently acquired tracts; so far only a little development has been undertaken. It, however, has the distinction of having a splendid growth of Douglas firs, something that no NATIVE PHILADELPHUS GROWING IN INDIAN CANYON PARK, SPOLA

other park so near the city's center is possessed of.

Indian Canyon Park, already referred to, is wholly within the three and one-half-mile circle and connecting with Palisade Park totals 162 acres. Indian Canyon is a beautiful gulch, where much varied scenery may be seen. At the eastern end are many thousands of different deciduous shrubs, among them the philadelphuses, which are so plentiful as to make a special feature. Farther up the canvon are some excellent examples of lava overflow, and a beautiful little waterfall helps to add to the naturally wild effect. A feature, too, are the Indian tepees, for few, if any, cities can boast of the aborigenes living naturally within their border.

From Rimrock Drive, which surrounds the western border of these parks, are many changing views of the city, the Spokane Valley, the distant Coeur



D'Alene, and other mountain ranges. This drive is surpassed by few in any parts of the country.

Down River Park, as the name implies, is a riverbank park below the city, and while much development has yet to be done, the river-bank drives that have been constructed show what nature has provided in furnishing such a river as the Spokane is.

Space will not permit the description of the many



THE FLOWER GROUND AT MANITO PARK, SPOKANE,

small parks like Cliff, where a beautiful view of the city and surrounding country may be had, or Cannon Hill, where a water effect has been made the feature, or Corbin or Hays, where the immense plantings of deciduous trees and shrubs have enhanced what was formerly natural prairie.

In driveways Spokane is well provided for, and High Drive, Rimrock Drive, Elliot Drive, and Down River Drive all have features peculiar to themselves in their various locations, and are only the beginning of what will eventually be a chain of connecting drives with

various parks in all sections of the city. In the development of playgrounds, Spokane has held its own, for in the space of one year eight different playgrounds were equipped in various sections of the city. All play work is under the immediate supervision of a supervisor of playgrounds and each playground is provided with one or more play directors, as conditions require. It has been found that the ideal playground is the park playground; that is, where a playground is wholly within or adjacent to a park. The reason for this is that, connected with a park, a playground can be handled much more economically, besides giving that aesthetic appearance, without which a playground is void of half what it is intended for. The Glass Park Playground gives a splendid example of this idea.

At the Sinto Triangle Playground large outdoor swimming pools have been established, which were opened for the first time the past season. These pools accommodate both men and women, and are provided with bathroom and locker accommodations, life savers, etc. Consideration has been given to all sorts of athletics, with the result that plans have been made for an extensive stadium within five minutes' walk of the center of the city. This stadium site has been partly graded and temporary bleachers have been built along two sides of it. The justification of this was shown the first opening day, when many thousands of people witnessed the events of the children's day.



THE PLAYGROUND AT GLASS PARK, SPOKANE

Spokane is on the direct route of the three northern trans-continental lines, with through trains of several others, and visitors to the Pacific coast should by all means plan to stop over and see this city of parks and artistic homes, of which its citizens are justly proud.

#### CONIFERS.

Strange as it may seem, it is nevertheless a fact, that there are a large number of otherwise well-informed people who do not know what the word means. It is the appelation of an order of trees, the sap of which is resinous, mostly evergreen, the seed of most species borne in cones, made up of scales. The word is derived from the Latin, conus, cone, and fero, bear; hence, conifer or cone bearing.

The flowers are uni-sexual, inconspicuous and intensely interesting to the student of nature. It would be interesting to know how many people who grow this class of trees have ever taken time to study their inflorescence, and learn the difference between the pistillate and staminate flowers, both borne on the same tree, therefore known as monoecious, a Latin word, which, when freely translated, means two families in one house.

All the members of the tribe, with few exceptions, are drouth resistant, and we believe that most people will agree to the proposition that they are all beautiful, all highly desirable for beautifying the landscape, and should be more extensively used than they are at present.

—Exchange.

NOTICE TO ADVERTISERS.
Forms for March Number Close March 1.

<sup>\*</sup>The second of a series of articles which will appear monthly between now and the San Francisco convention, describing park development in the cities of the Pacific Coast.

# The Proper Care of House Plants\*

By F. E. Palmer, Massachusetts.

When we consider how much pleasure may be gathered from the cultivation of flowers and with what tender and affectionate regard they are held by almost everyone who has once become acquainted with them, it is surprising that the study of their habits and needs

is not more thorough and general.

In pursuing this study, we will consider first the fundamental requirements of all plants and how nearly we may reach ideal conditions in the average home. The most essential need is light, direct sunlight if possible; at any rate, daylight and plenty of it. This fact is so important that it cannot be overestimated. Indeed, it is safe to say that if this one condition is granted, all others can be so easily provided as to make success assured with very little effort. This will be worth remembering in every phase of gardening experience. It will cause you to pull aside curtains and roll up shades in the early morning so that the plants in the window may get the first bit of daylight. It will warn you against placing window boxes under awnings or flower beds, in the dense shade of trees, and even the hardy shrubs will be given their fair share of the blue sky overhead.

Apropos to this particular phase of the subject is the fact that many householders, having become disappointed at their inability to really grow plants and flowers in their living-rooms, have improvised plant rooms out of existing sun parlors or enclosed piazzas or have built a small addition to the house for this particular purpose. These, if properly designed, are proving most successful, not only as conservatories where plants will really thrive, but as most delightful sitting rooms. Indeed, the combination of sitting room and conservatory is the principal charm of this arrangement, differing entirely from the old-fashioned elaborate and expensive conservatory which at best was a thing apart from the home. It is safe to predict that in the near future very few houses of any pretension will be designed without this charming feature being

considered an essential part of it.

Coming back to the regular living rooms, which is where our immediate interest lies, and still having in mind the question of light, it is quite possible to keep a variety of plants in comparatively healthy condition in rooms on southeast or southwest corners with good-sized windows on both sides, provided one is prepared to consider their needs as of first importance and is willing to give them the constant attention that every living thing requires. This attention should begin by removing every bit of shade such as roller curtains and draperies as soon as the first daylight appears and allowing the window throughout the day to fulfill its one essential function, which is to admit daylight to the room. With a room thus flooded with light, many foliage plants will thrive even at considerable distance from the windows; in fact, some plants have a marvelous capacity for adapting themselves to conditions that are far from ideal. Some instances of this adaptation, which refers to foliage plants only, will be given later when discussing individual species and varieties.

Flowering plants, on the other hand, are most exacting and will tolerate no position short of the immediate window sill.

\*Extracs from a juper real before the Massachusics Horticultural

The need of proper watering may be mentioned next. How much water and how often to be given seems to be a process in plant culture more difficult than any other for the average grower to understand. The trouble seems to be that plants have been classified by species rather than by individuals in regard to their need of water. Does a begonia need more water than a primrose, or a cyclamen more than a geranium? is invariably the form of the question. As a matter of fact, with the following three conditions existing, it is almost impossible to overwater:

1. A plant with a relatively large amount of foliage

and blossom in a small pot.

2. A warm room with very dry atmosphere.

3. Effective drainage in a pot which allows all su-

perfluous water to drain away quickly.

On the other hand, if a plant is in an over-size pot, especially when the earth has been insufficiently 'firmed" down, it is very slow to dry out. The soil in this case is like a loose sponge and remains saturated for a long time. No amount of drainage will help much under these conditions and if, as is often necessary, the plants are all kept in saucers, it will be almost impossible to keep these overpotted ones in good health. Even with all conditions ideal, it is impossible to lay down a rule as to frequency of watering. The successful professional grower relies entirely on his daily observation as to when a plant needs water, the only aspect and light color of pot and soil being his principal guides. Stern necessity has trained his eye to be very keen in this respect; with the amateur, an equally strong desire to success would quickly have the same result. Before dismissing the subject of watering, it must be admitted that certain species are found naturally in swampy places and others in very dry ones. In spite of this, however, it is a fact that most of the former will adapt themselves to ordinary environment with a moderate amount of water and that others which are not in any way aquatic by nature will also live for years under the same conditions. This statement does not include of course such extreme species as the pond lilies on the one hand or cacti of the arid plains on the other. At any rate, neither of these are interesting as house plants, and the fact still holds good that it is impossible to lay down a special rule for the watering of particular species of plants.

There is no royal road to the successful cultivation of flowers, even under favorable conditions, much less of with the serious handicaps which have been indicated. It is not a question of formulas or of higher education, of deep studies in botany or of soils or fertilizers, or does it involve the abstruse questions lately set forth by some impressionist biologist as to whether plants shudder or weep or laugh and clap their hands when you come into their presence, it is simply whether you care enough for them to give some time to their study and to supply their needs just as one would to a child or a highly-prized dog.

The use of saucers in which to stand potted plants may be a benefit or an evil, according to the degree of intelligence exercised. Some provision of course is necessary to prevent water which runs through the pot from injuring the flooring or furniture. On the other hand, many plants suffer from standing saturated all the time in a saucer full of water. This evil

small pebbles; in fact, the very best arrangement for a group of window plants is to provide a shelf the full length of the window and about twelve inches wide. Cover this entirely with a flat tray of galvanized iron two inches deep, filling it with a layer of white pebbles 1½ inches deep. Plants standing on this may be watered without any fear of overdoing it. The superfluous water runs in among the pebbles and quickly evaporates, so that there is no need of providing any special means of drawing it off. This constant evaporation is of great benefit to the plants and the whole affair is neat and practical.

In the matter of heating and ventilating the room, plants have to put up with what they can get. Excessive heat is perhaps second in the list of unfavorable conditions to which house plants are subjected. This is aggravated by violent extremes caused by throwing open windows when airing the room and by a draft blowing in around a poorly fitting sash. This latter continuing through every cold night is sufficient to destroy a whole window full of plants during the winter. Every window devoted to plants should be double glazed and great care used in airing the room on very cold days. Valuable palms are often destroyed by allowing an icy draft from an open window to strike them. Only a few minutes are necessary to accomplish this destruction, when the temperature outside is much below freezing. It is well to remember that all plants are benefited by comparatively low temperature at night, so that if circumstances compel us to subject them to a temperature of 80 degrees in the day, we should give them a rest at night by lowering the room to 60 degrees.

#### ORCHIDS.

Washington, D. C.—Probably there is no flower in the whole plant world which is admired more and understood less today than the orchid, the development and cultivation of which are discussed by J. Costantin in a paper of the Smithsonian annual report. Even the simpler orchids are very curious plants, of the so-called endogenous type, belonging to the same group as the lilies, palms, and grasses, but differing from them greatly in having showy and often highly colored flowers of remarkably diverse forms. Upon entering a house filled with orchids one is literally amazed by the bizarre display; the brilliance of color, and the peculiar forms of leaves, petals and roots. The number of known species is greater than that of any of the related families, even not excepting the grasses, totalling 6,000 species, included in 400 genera. This great number is, no doubt, due very largely to the diligent search which has been made for these plants in all countries, for purposes of cultivation, on account of their beauty and very great popularity. They have otherwise very little economic value, excepting a few members, such as the vanilla plant, from which the well-known extract is prepared.

Some of the orchids are terrestrial; that is, they grow with their roots in the ground. The great majority, however, including most tropical species, are epiphytes-"air plants"-which grow on trees and shrubs, but receive no nourishment from them. This peculiarity was chiefly responsible for the difficulty which was experienced in successfully growing many species upon their introduction into Europe from Asia and Malaysia in the eighteenth century. The proper mode of cultivation was perfected little by little, however, as soon as the necessity was realized of repro-

can easily be obviated by filling a saucer half-full of ducing artificially the conditions under which the plant grew in nature. For most epiphytes the scheme was devised of fastening the roots to a piece of wood, together with a little moss or absorbent peaty substance, by means of copper wire. Plants thus prepared were hung in very warm greenhouses and kept constantly moist by frequent drenching. It was supposed that tropical plants required an invariably hot humid atmosphere; and it was not foreseen that mountain species of tropical regions could not be treated essentially like tropical plants that are accustomed to elevated temperatures.

There are, in fact, many orchids, and some of these very beautiful, which grow in the neighborhood of snow. The error of associating plants from widely different surroundings was finally recognized and eventually more rational methods of cultivation developed, leading to the usual separation of orchids in three kinds of greenhouses, according to temperatures maintained in them-hot houses, temperate houses, and cold houses. Many of the finest orchids

are found in the last.

The writer also discusses at some length the wonderful creations in the shape of artificially produced hybrids, in which the new plant not infrequently differs greatly from both parents. Some of these are extremely beautiful, as well as peculiar, and the difficulty of their production is such that they command extraordinary prices, as high as \$1,500 having been paid in a single instance.

#### CATTLEYA GIGAS SANDERIANA.

The plant from which the photograph here reproduced was taken is that of the free flowering type of Cattleya Gigas Sanderiana. It was recently exhibited by Robert B. Allen, superintendent of Lakeside Gardens, Alberon, N. J., at the meet of the Elberon Horticultural Society, where it was awarded a cultural certificate. At the time the plant was exhibited it carried twenty-eight well developed flowers, which is remarkable for a plant of its size, being grown in a 7-inch pot. The plant came from some stock imported by Joseph Manda, of West Orange, N. J.



SPECIMEN CATTLEYA GIGAS SANDERIANA.

#### MAKING A VINE BORDER.

BY C. E. CARMAN, NEW YORK.

One of the most essential points in connection with the successful culture of grapes is to have the soil in which they are to grow well drained. For that reason the vinery should not be built in a low water-logged spot, especially if the subsoil is of a clayey retentive nature. If the house is to be planted with grapes for very early use the border should be wholly inside, for midseason and late grapes the roots can be allowed to run outside, in that case a border must be made outside in the same way as the inside border. To allow the roots to get to the outside border, the front of the house should be built on pillars or arches, either of which should extend downwards to the bottom of the border. Pillars are preferable to arches as there is less obstruction to the root run. If the house is built on a well drained subsoil, the draining of the border is comparatively simple, but if of a clavey nature it will be necessary to concrete the bottom, partly to facilitate drainage, but also to prevent the roots from finding the cold, sad, clav.

If the border is to be wholly inside it should extend eventually the whole width of the house. The depth of soil should be from 2 feet to 2 feet 6 inches at the front to 3 feet to 4 feet 6 inches at the back; that is, assuming the house is a lean-to. If a span roof house and vines are to be planted both sides, then the deepest part of the border should be in the center of the

house.

Beneath the soil should be from 6 inches to 1 foot of drainage (according to the depth of border) in the form of brick-bats, broken stones, etc. If concrete is necessary, this should be 3 inches thick, finished off fairly smooth and with a slope towards the main drain. The main drain should have a good fall to ensure the border never being waterlogged. When the concrete has set, the drainage may be put in, 2-inch or 3-inch tile should be laid diagonally, sloping towards the main drain, the tile should of course be laid dry, with one-quarter inch between each and the lines of tile should be about 8 feet apart. Alongside the tile and over the joints should be placed the largest pieces of whatever is used for drainage (whatever is used should be quite clean), over this the medium-sized pieces and finished off with the small pieces, a layer of crocks is fine for this if one has them. This drainage should be deepest under the deepest part of the border. To ensure the drainage being kept clean as long as possible it should be covered with sod, which should be cut fairly thin, fibrous, well shook and laid grass side downwards; place one layer of this all over the drainage, taking care no loose soil falls on the drainage, then place other sods over the joints, to keep the border soil from finding its way between. A border 4 feet wide is sufficient for the first year, adding one or 2 feet year by year until the whole border is complete. A wall of sods is best to keep up the soil, but it is advisable to sprinkle a layer of lime rubble or similar material between the lavers of sod which will help to aerate the border, and also keep the sod wall open and sweet. Socket tiles should be stood upright on the drainage at intervals of 10 or 12 feet, with the upper end projecting above the finished border; these will also aerate the border.

The soil for the border should consist chiefly of good fibrous loamy turf, chopped up roughly with a liberal addition of crushed bones, lime rubble and charcoal or burnt earth, wood ashes and well-rotted manure. This should all be turned two or three times

to ensure its being well mixed and made firm as the border making proceeds. If one or two-year-old canes are to be planted, these are best planted when dormant; turn the plant out of the pot, and wash all the soil off the roots, then disentangle them before planting; lay the roots out evenly and work some fine soil in between them and finish off level, with the vine stem about an inch lower than it was in the pot. Water with tepid water just sufficient to settle the soil round the roots. If vines from eyes struck the same year are to be planted, these will not be ready to plant before June, when they should have made 3 or 4 feet of growth, and if the border has been made some time before, the soil will be warm and the vines should go away without a check. This latter system is to be preferred, for the roots are not so liable to be damaged, especially if the vines have been grown in sods instead of pots. Muscats like a warm border, therefore the shallower depth as given are more suitable for them.

#### WAR AND POTASSIC MANURES.

By J. Johnson, New York.

The effects of the present European conflict are truly numerous and far-reaching. In horticultural circles alone there have been already complaints raised concerning the seed and bulb harvests, as well as much ado about the temporary cutting off of the supply of that valuable manure, mine potash. Every gardener readily admits the merit of potash in a wellbalanced mixed manure, and most of us know that high-grade fertilizers are of comparatively recent birth. So why worry if the supply of kainit from Germany is temporarily suspended? Our forefathers supplied potash to the soil before the German mines were discovered, and we now must resort to the same methods as they. Consider the value of farmyard manure. This undoubtedly contains a high percentage of potash, and on account of the humus it contains, produces the double effect of rendering a heavy soil more porous and a light sandy soil more retentive of moisture. It has been estimated that a cow in her droppings alone produces annually 20 pounds of potash equal to about 160 pounds of kainit. The urine of the same animal possesses an even greater fertilizing propensity, potash available being four times greater than that of the dung. Unfortunately much of this valuable liquid is lost in the drainage.

Then again, at this time of year there is generally much garden refuse that can be turned to account by burning. Make a "smother" of all weeds, prunings and waste vegetable matter and the result will be a black ash of the most fertilizing nature such as a mere fire will not produce. Burning, it should be remembered, is definitely destructive of whatever garden pests may be upon or about the refuse. The amount of potash in such ashes will vary, but 10 per cent. is regarded as an average which is not much less than

kainit contains.

Seaweed also contains potash in variable quantity. A ton of fresh seaweed contains from 20 pounds to 30 pounds available, while dried seaweed sometimes contains five times the amount of fresh.

Common salt also reduces the need of potassic manure in some cases, but on account of the chloride it also contains being injurious to some crops, salt should be applied with caution. The effect of salt on weeds when used in excess should be sufficient evidence of its destructive character, and this form of potash should never be applied to potato, sugar beet

or tobacco crops, hindering the formation of carbohydrates in the former, preventing ready crystallization of sugar in beet, and in tobacco impairing the quality.

#### VEGETABLE CULTURE A WORTHY STUDY.

By Duncan McIntyre, New Jersey.

The advance in horticulture which made itself conspicuous towards the end of the nineteenth century was not limited to any division or class, while an immense wave of popularity enveloped hardy flowers, fruit growing received a powerful impetus, and vegetable culture moved forward with accelerated speed. There was nothing more conspicuous than the increased attention devoted to truck farming and in the improvement of vegetable culture in private establishments both large and small. This good work was supplemented by the efforts of food reformers, who by showing the beneficial effects on the health of the community of pure fruit and wholesome vegetables encouraged a greater demand for garden products. There is still much to be done in the latter direction when we consider the multitudes of people who feed their families on cheap tinned meats, rather than better themselves to learn and practice the cooking of sound vegetables. No person will deny that the national dietary must be the better if abundance of vegetables are included in it. Every truck farmer who studies his material interests must be a good reformer of a moderate common-sense type.

He will not arouse the opposition of the public by excessive prices for his vegetables, but he will help on any step which encourages the cooking and consumption of sound vegetables. When we consider the value of vegetables is there not reason to fear in the majority of private gardens too much is left to the laborers? Is there not a tendency on the part of the young professional gardener nowadays to neglect the study and still more the practice of vegetable growing? If so, it is regrettable in a measure, perhaps it is excusable, but in the degree to which some carry it is unpardonable. Admitting that the development of hardy flowers, by creating an entirely new system of flower gardening, has formed a new field of study; admitting further that gardening has been specialized to some extent, notably in the matter of orchid culture, thereby adding a fresh item of study to the already long list which the ambitious young practitioner has prepared for himself, it nevertheless remains essential that vegetable culture as one of the stock sections of garden work should have due attention. As a class young gardeners compare favorably with any other that could be named in earnestness and devotion to duty; with few exceptions they are genuinely interested in and bent on mastering the secrets of the old and noble craft, but some of them succumb, not unnaturally perhaps, to the temptation of dismissing vegetable culture as a poor, even contemptible, study hardly worthy of educated people. In their reckless, vulgar and silly language a kitchen gardener is nothing but a cabbage grafter; this is very mischievous, for it nourishes the false impression that the plants we call vegetables are an inferior race. There is as much interest in studying the varieties of potatoes as of phloxes; as much honor in growing a good cabbage as a good cattleya. Then again, in all our cities and towns we have the various flower shows in which vegetable collections have of late been one

of the leading features, and for which very handsome prizes are offered; this alone should arouse the young gardener to great deeds.

Young gardeners will assuredly do well to give the same earnest study to the kitchen garden as their predecessors of the old school did. It is not suggested that they should strive to spend all their time among vegetables, but it is advised with all seriousness that they should learn soil management, manuring, manipulation of tools, rotation of crops and the every-day routine of the kitchen garden. Without this knowledge, how can they properly supervise their laborers? When they secure head places, will they not be absolutely in the hands of their inferiors? So in the interests of our noble profession, let us devote a little more energy in the matter of vegetable culture.

#### THE TIME TO PRUNE PEACH TREES.

The proper time to prune peach trees, according to the United States Department of Agriculture's specialists, is during the dormant period, preferably late winter or early spring, just before growth starts. This is true except in regions where bleeding from wounds is likely to occur, when it should probably be done in early winter.

If the fruit buds are endangered during the winter by adverse temperatures, it may be advisable to delay pruning as much as economic conditions permit until settled spring weather arrives. This is especially advisable if heavy heading in of the previous season's growth is involved, since the proportion of live buds may determine the extent to which the cutting back should be carried.

There is a wide difference of opinion regarding the practice of pruning trees, but the most successful fruit growers usually prune their trees. The principal objects may be summed up briefly as follows:

- 1. To modify the vigor of the tree.
- 2. To keep the tree shapely and within bounds.
- 3. To make the tree more stocky.
- 4. To open the tree top to admit air and sunshine.
- 5. To reduce the struggle for existence in the tree
- 6. To remove dead or interfering branches.
- 7. To aid in stimulating the development of fruit buds.
- 8. To thin the fruit.
- 9. To make thorough spraying possible.
- 10. To facilitate the harvesting of the fruit.

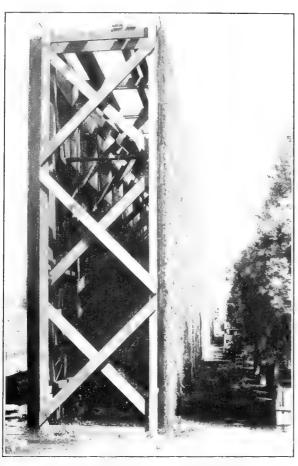
Obviously the pruning which a tree receives during the first two or three years after it is planted has much to do with its future. Mistakes in forming the head or the results of neglect during the early years in the life of a tree are practically irreparable. On the other hand, if the tree is well formed and properly pruned during its first years, the foundation for a good tree is established; subsequent errors in pruning, if they occur, may admit of correction without permanent harm to the tree.

A great many practical pointers on renewing the tops of peach trees, changing the top by budding and grafting, thinning the fruit, controlling insect pests, and on growing some annual crop in between the trees, are included in Farmers' Bulletin (No. 632), which may be obtained by applying to the Editor and Chief, Division of Publications, United States Department of Agriculture, Washington, D. C.

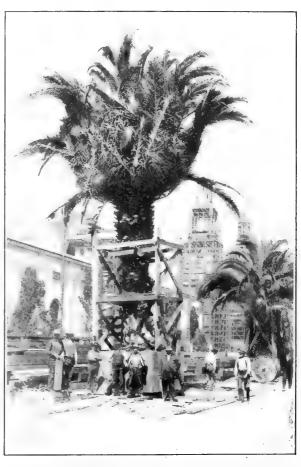
# PANAMA-PACIFIC EXPOSITION FLORAL WALL.

Few of the details of the Panama-Pacific International Exposition are more remarkable than the great "flower garden on edge" or floral wall, 1,100 feet long, 20 feet high and six feet thick, extending from the

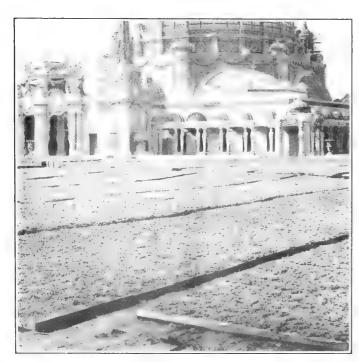
Fillmore street entrance westward to a point opposite the crystal dome of the Palace of Horticulture. This floral rampart, absolutely unique, was the invention of John McLaren, superintendent of gardening, who spent a year in experimenting with sundry vines and flowers, before deciding on employing the many



MESEMBRYANTHEMUM WALL, SHOWING METHOD OF CONSTRUCTION.



A GIANT PALM READY TO BE PLACED IN THE GROUND.



MESEMBRY ANTHEMUM BEDS BEFORE BEING RAISED TO PLACE.
PALACE OF HORTICULTURE IN THE BACKGROUND.



AVENUE OF PALMS IN FRONT OF HALL OF EDUCATION. THOUSANDS OF LARGE PALMS HAVE BEEN PLANTED.

pink-flowered ice plant, known scientifically as me-

sembryanthemum spectabilis.

This barrier is made of 8,700 large boxes of flats, each two by six feet and two inches deep, closely set to plants, and set upon edge, one above another. Chicken wire is tacked over the surface to confine the dirt, and the flats are picked to a wooden trestle work, on both sides of the wall. Irrigation is effected by means of perforated pipes placed on top of the wall. The plants, growing horizontally, are flourishing far better than when set on the ground. The seams were quickly overgrown and the resemblance to a mossgrown wall is perfect.

The wall will be pierced by seven entrances, including an imposing main gate in the Mission style at the main Scott street entrance. This also will be made of

the superposed boxes of flowering plants.

One of the big undertakings in connection with the construction of the exposition has been the transplanting of the mammoth trees. The photograph shows one of the giant palms ready to be placed in the ground, and its size may be inferred by the figures of the men around the base of the palm shown.

The roots of the trees and plants introduced to the exposition grounds are boxed in with the soil to which the plant is accustomed, and after being transplanted to its new home the boards around the roots are removed and the palm or pine is carefully nurtured un-

til its roots take hold in their new bed.

Flowers play an important role in the wonderful color scheme of the exposition. As immensity is the keynote of the architecture, so great numbers of flowers are woven into the canvas of the exposition. There are 50 acres of lawn. A great avenue is lined with 4,000 giant date palms. More than 75,000 geraniums have been transplanted from the nurseries in the 65 acres of gardens adjoining the Palace of Horticulture.

The acacia is now blooming along the buildings. It is the proud boast of the exposition that nearly 6,000 acacias, specially selected in various varieties, will be seen in bloom during almost the entire period of the

exposition.

The 5,000 rhododendrons, which arrived from England and Holland at about the time the war broke out, have developed in the California climate into magnificent plants, and these are being stretched along the pathways of the gardens. Begonias, fuschias, hydrangeas and English laurel are being set about the miniature gardens in the Court of Abundance and in the great South Gardens.

### ART, ADAPTABILITY AND COLOR ARRANGE-MENT IN THE FLOWER GARDEN.

By Joseph Robinson, New York.

One of the most striking evidences of the advance of floriculture to the original scenic effect for which it was primarily intended by nature, is the gradual revision from the old formal and inartistic style of arrangement that held sway in the Victorian era. Up to 10 years ago there were very few large country estates but what were marred by the prevailing idea of formality and patternism, as I call it. The prevailing idea seemed to be carpet bedding and a general arrangement of lines, squares and circles on terraces, etc., intermixed with needless walls, statuary and clipped trees and shrubs, that the man with the shears has worked, sweat and sworn over, with the effect of completely marring their natural gracefulness, for the

purpose of making them conform to the monstrosity that had its birth on the drawing board.

The result of all this was a sameness wherever one went. Even though one found a diversity of geometrical design, yet the effect from a natural and artistic point of view was a failure. How many of our leading gardeners today can turn memory back to the old home on the other side and call back to mind a picture of that old thatched cottage with its walls and porch covered with the rose and the ivy, and how well we remember mother's wall-flowers, etc. Yes, long after we have forgotten the great designs and conglomeration of color in the gardens of our apprenticeship. Why do we see so few paintings by great artists, with the flower garden as a subject?

We find natural landscapes and wild scenery galore. It is because we find no true art in the garden above described. The more the idea of clumping and massing of trees, flowers and shrubs is carried out, with harmony of color being strictly observed, the more infinitely attractive the garden will be. We cannot find a better teacher than nature herself. There are more tints and colors in nature than can ever be diversified, yet they blend in perfect harmony no matter whether on mountain, in woodland, or dell, each and all go to

form a perfect setting.

Harmony of color is the first essential in floral arrangement and the simpler the idea, the greater the effect. The clumps and masses should be large enough so each may dignify itself to its size in due proportion. A definite color scheme should be decided on. The herbaceous border ought to have a certain contrasting effect (in places), but not above a certain proportion or the harmony of color generally

will be spoiled.

Where a good flower garden or border is desired, it is necessary to have a means of supply to keep filling in as needed. Coldframes and a small nursery are good to have on the place as a means of raising both annuals and perennials, as many of our alpine and herbaceous species, although classed as hardy, have a tendency to die out from the effect of a rigorous winter. A heavy manure mulch will often do as much harm as the weather. Salt hav or a mulch of very strawey material is much better than the more decomposed manure; for protection it is a difficult matter to maintain a continuous show of bloom throughout the season in the herbaceous garden. A system of raising and potting on subjects, such as the fuschia, heliotrope, lantana, celosia, early flowering chrysanthemum, etc., is a great help in filling in spaces that otherwise would look barren towards the fall and will repay any extra labor involved.

#### PRUNING ORNAMENTAL SHRUBS

It is doubtful whether any other necessary gardening operation is so little understood, or so seldom properly carried out, as the pruning of ornamental shrubs. In many places, and more particularly gardens of small dimensions, the cutting is carried out indiscriminately and to excess, with the result that the plants never attain the graceful contour and freedom of blossoming that Nature intended. On the other hand, one sometimes finds, even in good gardens where a large staff is kept, shrubberies that are overcrowded and neglected, and far from being the interesting and pleasing feature that a well planted and tended shrub border ought to be.

For the purpose of elucidation we may divide orna-

mental shrubs, roughly, into three sets, i. e., those that flower in late winter and spring, those that flower in summer and autumn, and those of an evergreen character. The first two sets are of the greatest importance, and, owing to the divergent character of the many kinds embraced, need the exercise of forethought and care.

Of shrubs that flower in late winter and spring we find good examples in the Winter Jasmine, Forsythia suspensa or Golden Bell, Spiræa aguta, S. Thunbergii and S. confusa, Winter Sweet (Chimonanthus fragrans), Prunus japonica flore pleno and the Starflowered Magnolia, M. stellata. Now, it is obvious that as these shrubs produce their blossoms so early in the year, they must be borne on wood that was made the previous autumn; hence to cut away any of this wood before the flowering, i. e., in autumn or winter, would mean a corresponding loss of flowers. For this reason the wise gardener will defer any cutting that may be necessary until after the flowers have faded, but the earlier then it is done the better; for this removal of wood is an inducement to the shrub to produce more growths of a robust character that will, in most instances, flower freely next winter or spring. Although this may be taken as a good general basis on which to work, some knowledge of the shrubs and the conditions under which they are grown will also be necessary. Some shrubs, notably Magnolia stellata, already referred to, are so slow-growing that very little pruning is ever needed, all that is required being an occasional thinning out of old wood. On the other hand, the Golden Bell (Forsythia) or Prunus triloba flore pleno will need their shoots that have flowered cut back close to the old wood if grown in beds or against a wall, but if grown in a border, where large specimens can be accommodated, only a few growths need be treated in this way. Much the same remarks apply to the Winter Jasmine when, on the one hand, it is grown in a confined space and, on the other where it has almost unlimited room. It will therefore be seen that the pruning of early flowering shrubs calls for the exercise of common sense and knowledge of the habit of the plants and the purpose for which they are grown.

When we come to Summer and Autumn Flowering Shrubs, the remarks as to the exercise of common sense may be applied with equal force. But here the method of pruning will differ considerably. section we may place such shrubs as Buddleia variabilis veitchiana, Tamarix æstivalis, such Spiræas as japonica and Douglasii, Ceanothuses, azureus and americanus, and Diervillas or Weingelas. With these shrubs the pruning is usually done in February or March, especially with the Buddleia and Spiræas, which are then cut hard back almost to the old wood. These shrubs produce their best flowers on growths that are made during the current year, and, by pruning severely, the formation of sturdy shoots is induced. Then someone may ask, "Why not prune earlier in the winter?" The reason is this: If the work were done, say, in November or December, the dormant buds that were left would, in all probability, start into growth almost at once, and, consequently, be very liable to damage by cold winds or frost. By leaving the pruning until March, the buds remain quiescent and the danger is to a very considerable extent obviated. The Tamarix mentioned may be pruned in two ways. At Kew it is grown in large lawn beds, and is cut down nearly to the ground level early each spring. On the other hand, if grown in a shrub border and a large plant is desired, less drastic treatment would be

called for, a partial shortening back only of the growths being necessary. The Diervillas or Weigelas need different treatment again. Although flowering in summer, the blossoms are mostly on the previous year's wood, and a thinning out of very old growths is all that can be permitted, unless some are shortened to keep them within bounds. The Ceanothuses named are cut back almost to the old wood each year, but this must not be taken to apply to such kinds as C. rigidus, C. thyrsiflorus and C. veitchianus, which flower much earlier in the year, and ought, therefore, to be treated as advised for Forsythia. Most of the ornamental flowering shrubs come under one or the other of the types that are named, and, with reasonable care and observation, their pruning ought not to be a matter of great difficulty.

With Evergreen Shrubs the work is of a comparatively simple character. It is usually done for the purpose of admitting light and air to the plants, when a general thinning out of the oldest and worst-looking shoots is called for; or to keep the plants within bounds. In the latter case shortening back of too venturesome growths is demanded, and let it be done with knife or secateurs, not with the garden shears, especially where large-leaved shrubs are being dealt with. Although evergreen shrubs can be pruned at almost any season, March is most generally favored, because new growth is subsequently very quickly formed, and any branches that may have been laid bare veiled with

greenery.—The Garden.

#### MAKING AN AZALEA BED.

Though azaleas are by no means plants requiring lots of care, they are particular as to soil, and it is in this respect that the best is not always done for them when planted. Everyone who has had to be among them knows what very fine roots they have, some of them almost hair-like, and this at once suggests a peculiar soil for them. A first requisite, suggests Joseph Meehan in Florists' Exchange, is that it should be of a sandy or light gravelly nature, and whether it be peat, decayed leaves or light loam to go with the gravel or sand, is not material. The thing to avoid is a heavy soil, which the azalea abhors.

In the making of a bed for azaleas the main thing to consider, aside from the soil, is proper drainage. Should the nature of the ground be loamy and fairly. drained there is really no need of a prepared bed, given the proper kind of soil. Should the soil be of a stiff nature it is better to dig it out to a depth of two feet, filling in with the lighter soil spoken of, so that drainage may be assured, not that the roots will extend downward to two feet. On hilly situations where drying out in summer is to be feared, it is well then to dig the bed deeper, as a protection against drought, the loose soil holding moisture better than that which is hard.

A good place for an azalea bed is where the shade from a large tree or a house will fall on it in the heat of the day. The plants prefer this, and the flowers last longer than when exposed to full sun.

Rhododendrons, andromedas of the evergreen character, and all like plants may be considered the same as azaleas in forming a bed. Fine, loose soil, good drainage, and partial shade is what they require.

ARE YOU A SUBSCRIBER? If not, forward your subscription, \$1.50, to CHRONICLE PRESS, INC., New York.

# Work for the Month of March

By Henry Gibson.

The object of pruning fruit trees is so well understood by gardeners in general that it is needless to go into the details of it here. As to the time of pruning, different authorities hold different views. Some contend that early spring, just as the sap begins to flow, is the proper time, whilst others just as strongly contend for pruning during the fall and winter when the trees are dormant.

We are of the opinion, however, that from the average gardener's standpoint that any fine day during the winter is well spent in pruning. In the spring there is usually a pressure of other work, much of which will be done in a rushing, slip-shod manner if too much is left to be done at this time. Winter pruning is equally as satisfactory in normal seasons as is spring pruning, and has the advantage of greatly relieving the pressure of spring work. Any pruning that is not yet done should be attended to on the first opportunity.

All cuts of any size should be painted over after being allowed to dry for a few days. The paint will then stick to the surface better and the oil soak into

the wood.

While talking of the fruit trees it would be well to mention the spraying. Don't overlook this; it is one of the most profitable operations that can be performed. Whether you have only ten or a thousand trees, spray them.

#### HOT BEDS AND COLD FRAMES.

A hotbed or two where small stock can be raised is a most valuable acquisition to any gardener, be he amateur or professional. A layer of well-firmed manure about 18 inches deep, , and extending a foot or more beyond the area covered by the frame, will generate sufficient heat to resist any belated cold spell that is likely to overtake us during March, and will last until the warm days of spring are with us again. The later the hotbeds are prepared the less fermenting material will be required, and if some hay, straw or leaves be mixed with the manure it will last longer, and the heat will not be so intense. Three or four inches of soil is enough for the raising of seedlings or rooting cuttings. This layer of earth should not be put on until the first rank heat has escaped, and no seeds or cutting should be put in the soil until the heat has settled down to, and gives indications of remaining steadily, at from 60 to 65 degrees. Should severe weather set in after the bed is made up, the sash should be put on, and a covering of hay, straw, or mats over them all round the frames will do much to maintain the heat at an agreeable point.

There are few kinds of seeds, cuttings, bulbs, or small potted plants that cannot be successfully handled in a hotbed, and for the man without a green-

house such is invaluable.

Pansies, myosotis, daisies, etc., that have been wintered in cold frames should be aired more freely than has hithertofore been possible. These plants will hardly suffer to any great extent from severe cold or sudden changes in the temperature, but if allowed to remain covered during a real warm spell they are bound to suffer. Go over them carefully and pull out any weeds that may have grown up, and water any of the plants that show signs of dryness.

#### FANCY LEAVED CALADIUMS.

There are few plants that can be used to better advantage in brightening up and adding color to the

conservatory during the summer months than the fancy leaved caladiums. Those who have need of this sort of thing would do well to get some started during the present month. They don't make much head-way until well along in June, but those started early make extra sized plants and are well worth the trouble. A good way to start them is to put them into 2½-inch pots in a light sandy soil. Care should be taken, however, to have a layer of clean sand immediately below the bulbs. The pots should then be plunged into peat litter in a propagating case, where a bottom heat of from 75 to 80 degrees can be maintained. Another way to start these caladiums is to plant them close together in flats on a layer of moss and cover overhead with the same material. The flats are then elevated on bricks over the hot-water pipes. When potted they should have a compost of fibrous loam, leaf mold, and sand, with the addition of a little broken charcoal. Give them a night temperature of 40 to 45 degrees and keep the atmosphere rather humid.

#### Cannas.

Cannas that have been stored away in the cellar should be started into growth. Clean away the dead leaf bases and cut the roots into pieces, each having two eyes. If one is short of stock and a large quantity is required, cutting to one eye may be practiced, though we do not think that the plants are so strong when only one eye is left. Set the pieces close together in flats containing a mixture three parts good loam, two parts leaf mold and one of sand. To start well cannas require a brisk bottom heat, and this can easily be provided by placing the flats on the heating pipes in the rose house. Of course, if one has sufficient room in the propagating bench they will start equally well there. Watering should be done with care until growth is active, but on no account should they be allowed to dry out whilst starting into growth.

Callas.

It is from late winter down through the spring months that callas yield the greatest supply of flowers. They like copious supplies of water at the roots and frequent syringing is necessary to keep down red spider. Callas are strong growers and the constant production of foliage and flowers render feeding necessary at frequent intervals. Liquid cow manure, applied twice a week, and an occasional dose of soot water will go a long way in keeping the plants in first-class condition.

STEVIA.

Place the stock plants of stevia close up to the glass, so that they will produce sturdy cuttings. In a carnation house, they will soon show plenty of cuttings, which can be placed in the sand alongside the carnation cuttings, and they will coat without any trouble.

Pricking of Spedlings.

There will be lots of seedlings that will be ready to prick off into flats or be potted up. As the days lengthen and the sun gains more power it will be necessary to watch the seedlings more closely and see that they do not dry out. Use a good proportion of leaf mold for all seedlings, and if some old manure from a spent hotbed can be incorporated with it the seedlings will be all the better for it. Careful watering, shading from bright sun for the first few days, and a moderately close atmosphere will do much towards reducing losses to a minimum.

#### NEW YORK'S SPRING FLOWER SHOW.

Of the planning and preparation necessary to produce a flower show of the scope of the one which will be held in New York in March 17-23, the average person has but a slight conception; for few will realize, as they visit the show in the Grand Central Palace next month, that



F. R. PIERSON, Chairman New York Flower Show Committee,

what they see before them is the result of the untiring efforts of a small body of men, who, for more than a vear, have devoted much of their time and thought to bring together the vast collection of beautiful plants and flowers which will be gathered in the large auditorium when the doors are opened to the publie on March 17.

The endless detail which enters into such an undertaking -t he making up of the schedule to meet all requirements—

providing the premiums—securing the exhibits—and finally procuring the attendance—is a task which makes big demands on the time of the members of the committee all of whom render their services gratuitously. It necessitates the holding of an executive meeting every week and regularly on Saturday afternoons the committee, which is composed of F. R. Pierson, F. R. Newbold, T. A. Havemeyer, George V. Nash, Prof. N. L. Britton, James

Stuart, Jos. A. Manda, and M. C. Ebel, representing the Horticultural Society of New York and Harry A. Bunyard, Wm. H. Duckham, C. H. Totty, Frank H. Traendly, Julius Roehrs, W. H. Siebrecht, Sr., W. R. Pierson, F. L. At-kins and John Young, representing the New York Florist Club, meets at the Grand Central Palace where the various details entering into flower show promotion are worked out. The prizes, \$15,000, which will be offer-



JOHN YOUNG. Scriptiv No. Yeal Flower Slov Committee

ed at the New York Flower Show, exceed in value those offered at any other show held in the Grand Central Palace and in this building the automobile and all big shows are held. A flower show at the Grand Central Palace must be managed on the principles of the regular show business, for, in order to draw the public to it—

and secure the necessary publicity for such a show, attractions must be presented which do not fall far short of sensational; and, to accomplish this, the committee has planned some surprises for the coming show, in the nature of exhibits and arrangements which have never before been attempted at a flower show.

That the non-commercial, or private grower, is looked upon as an important factor in the 1915 New York Spring Flower Show is quite evident from the following communications which have come to us from F. R. Pierson,



RICH G. HOLLOMAN, President International Exposition Company.

chairman of the Flower Show Committee, and from Arthur Herrington, General Manager of the Show.

It remains with the gardener to come to the fore and do his best, for the success of the show will reflect great credit on his profession and will materially aid in arousing a greater interest in horticulture.

John Young, secretary of the Flower Show Committee will be glad to furnish schedules, or any other information re-

garding the show, to all those who may be interested and will apply to him, in person or by letter, at his office, 53 West 28th street, New York.

One of the most enthusiastic workers of the Flower Show Committee is Richard G. Holloman, president of the International Exposition Co., which company con-

trols the Grand Central l'alace. Mr. Holloman represents his company on the Flower Show Committee and his association with the flower shows of 1913 and 1914 have made him an enthusiastic horticulturist. It is worthy of note that of all the portraits published on this page Mr. Holloman alone bears the emblem of floriculture—the boutonniere. Holloman's slogan is, "It pays to advertise, and he constantly urges his



constantly urges his ARTHUR HERRINGTON, fellow—committee Green, Manager N w York Spine Diese, Stew

men that it is as essential for those engaged in the pursuits of horticulture to advertise themselves as it is for those engaged in any other vocation.

Two of the hardest workers on the Flower Show Committee are men not affiliated with the horticultural trade—

although both are much interested in horticulture—T. A. Havemeyer, vice-chairman, and F. R. Newbold, treasurer of the committee. The great success of the 1914 show was in a large measure due to the work of Messrs. Havemeyer and Newbold as members of the 1914 Flower Show Committee, and they are found working just as earnestly this year to make the 1915 New York Spring Show the greatest flower show ever produced in this country—and everything indicates that they will succeed.

#### AN INVITATION TO THE GARDENERS.

Ornamental horticulture will be the feature of the International Flower Show, to be held at the Grand Central Palace, March 17-23rd, and the opportunity presents itself to the private grower to show his skill in arrangement and effect, for the schedule offers many classes where arrangement will count materially in the judging.

The Flower Show Committee is endeavoring to produce a flower show this spring entirely unlike anything heretofore produced, and if it can count on the support of the private gardeners it will be possible for it to accomplish what it has set out to do.

The schedule has been prepared so as to enable all gardeners to compete at the show; for there are classes for those who are in position to make big displays and classes for those whose means for exhibiting are limited.

My gardener friends, we invite to you to put your best efforts forward—to enter in as many classes as your facilities will permit you to do—and in this way co-operate with us to make the 1915 New York Spring Flower Show the most successful ever held.

F. R. PIERSON, Chairman, International Flower Show Committee.

#### AN APPEAL TO THE GARDENERS.

As manager of the forthcoming International Flower Show, I appeal to my fellow gardeners for their co-operation and support in making this show a great success. All the preliminaries have been arranged with one single purpose, which is to make this show larger and better than any that have preceded it. No more liberal nor more comprehensive schedule for a spring show has ever been arranged. The trade fully realizes the importance of the event and will do its part.

We specially need the private gardener with exhibits large or small according to the facilities at his command. The classes for private gardeners are most extensive and varied and some of them offer a splendid opportunity for originality. For example, in Section A, there is a class for a "Group of flowering plants and bulbs (orchids excluded) arranged for effect covering a space of 200 square feet." First prize, \$150; second prize, \$100. This class could be made one of the features of the show. Will you do it?

Everything available at this season appears to have been provided for with premiums of unusual liberality, but our efforts along these lines are in vain unless there is the response of large exhibits to make the show a real success.

Surely there is no better way than this to advance the profession and spread the love of gardening.

ARTHUR HERRINGTON, Manager, International Flower Show.

#### A SUBSTITUTE FOR NORWAY SPRUCE.

The general decadence of Norway Spruce plantations, so visible in the proximity of our older cities, calls for the substituting of some other evergreen for uses for which the Norway was formerly employed, writes Joseph Meehan in Florist Exchange. Wherever one finds a line of Norway Spruce, planted, say 50 years age, oftener than not the trees are in a deplorable condition, half dead, many of them, and hardly one in the line a vigorous, pleasing appearing tree. This is not only true of trees so near cities that smoke and gases cause it; trees far from such influences are to be found as ill-looking as those close to cities. But a few days ago, passing along a highway bordering a large estate, the writer saw a long line of evergreens in two rows. The row nearest the highway consisted of Pinus Strobus, the White Pine. These were in excellent condition. Behind them was a row of Picea excelsa, the Norway Spruce, and the condition of these trees disgraced the place. From appearances both these and the White Pines had been planted at the same time.

The beauty and general worth of the White Pine is well known; its silvery foliage is much in its favor; but at the present time, thinking of a tree of dark green foliage and of the habit of growth of the Norway Spruce, there is nothing so near it as the Douglas Fir, Pseudotsuga Douglasii, our old Abies Douglasii. There are now specimens of this tree on many of our lawns which have reached a height of 40 to 50 feet, and which in character remind one of the Norway in their outline, but are less rigid of branches, and the foliage is of a softer texture.

Wherever planted this evergreen has given great satisfaction, pleasing from its earliest years. It is easily procured, as it seeds freely, and seeds germinate well, while for rapidity of growth it has no equal among evergreens.

There are two varieties of this, the Douglas Fir. One extends along the Pacific Coast from Alaska to California and inland to Montana and Idaho, while the other is found in Colorado and New Mexico. It is this wide range of territory that permits of its use in all parts of our country. Where winters are not severe, the Pacific Coast variety can be used; the Colorado one in the coldest States. In eastern Pennsylvania either kind can be used, but it is safer to rely on the Colorado. There is little difference in them. The Pacific variety makes rapid growth, and has very dark green foliage; while the Colorado one is also fast growing, it is not so fast as the other, and its green color is not so intense. But it is a lovely tree; and whichever variety is planted, there is no doubt more satisfaction would result from the setting of the Norway Spruce.

#### TREES IN WINTER.

Lealless trees are by no means uninteresting, neither are they the liteless things they seem to be. Even when trest gaps the earth and all vegetation seems at a standstill, trees are actively alive. Far down in the earth their roots are taking up nourishment, and when the mild days come this "lifeblood" is carried up through trunk and branch, ready to renew the annual miracle of leaf and bloom and fruit. The leaves fade and die, but the tree lives on. The winter time period of apparent death is really a period of rest and resuperation.

To the lover of trees there is much to admire and interest during this resting time. The rare beauty of the spring and summer and the brilliant glory of the autumn is lacking, but the strength and rugged majesty of trees are all the more in evidence when their branches are leafless and bare. Singly or in groups trees are a most important and interesting element in the winter landscape, and afford constant protection and comfort about our homes. Realizing this the careful tree owner and landscape gardener never relaxes his care and vigilance at any season of the veer



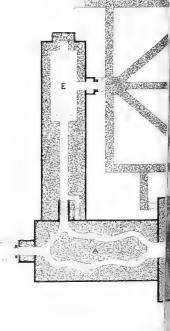
In spite of the height and breadth of the roof span, so skilfully and attractively was the frame work worked out, that the structural parts became ornamental. This, to our nction, is architecture at its best.

TITHIN the environs of Paris, is the wonderful cemetery of Pere Lachaise. Here lie many characters famed in history and art.

Of all the graves and tombs visited by countless thousands each year, none is frequented quite so much as that of Abelard and Heloise, the world's famous lovers. Separated in life but united here in death; they stand for the love there is

in Humanity.

In the Missouri Botanical Gardens at St. Louis, is a choice grove of trees, in the midst of which is a beautiful classic structure of stone.



Right agl

By L

The main entrance, facing Floral Avenue. Across the formal gardens, directly opposite, is the Horticultural Building.



# nical Gardens

of a Nature Lover

THILL

drawing of the rear view you get the best impression of the magnitude of the new Hortz ultural Building.

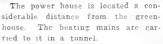
Over this little temple, the caressing shadows cast by the waving branches are ever shifting. Here lies the remains of Henry Shaw, the world's great nature lover.

Here it is that one finally comes after visiting the wonderful gardens given to St. Louis and the world. by this wonderful man.

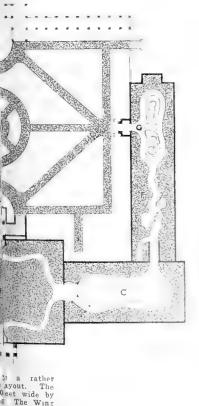
As you stand in the grove, you appreciate as never before, Emerson's remark,

that every great accomplishment is but the lengthened shadow of some master mind.

And so it is that this magnificent garden becomes the lengthened shadow of

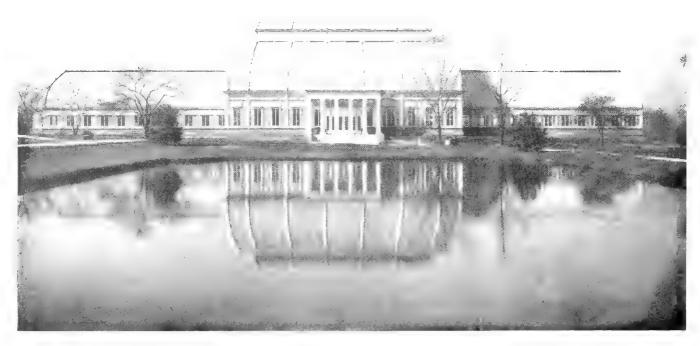


All the Administration buildings, the Museum and the Director and Assistant Director's residence are also heated from it,



oeet wide by
The Wing
each 47 feet
c's long. The
and G, are
swide by 135

A construction classic handling, this entrance is well worth careful consideration. From any point of view it a impressiv



Front View. If you would see an entrancing sight, come here some day just at sunset, when the sky colorings and the beautiful lines of the building are mingled in the pool's reflection.



Soothed by the babble of the brook; over the bridge into the landscape of ferns we come.



Another view of the front, showing just a glimpse of one rear house. You get a peep of the Power Plant chimney at the right.



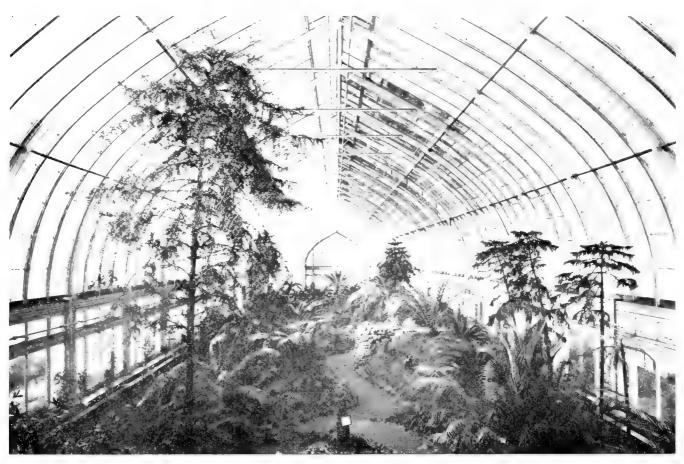
Surely here is a fern paradise. Better watch out, or the fairies may come out of the grotto and wave their mystic wands over you.



The Palm House is a fitting setting for the Garden of the Gods. In fact, I think that's exactly what it really is.



Could you have been with me in the bloom garden, when the Chrysanthemums were aglow, you would have seen a sight scarcely surpassed by any of the flower shows of the country.



Towering acacias and countless semi-tropic plants lure you on and on. With what a fund for enjoyment and information it is filled!



Nor is the truly practical side of living overlooked, for here you find a remarkable collection of the so-called "Economic Plants." Plants from all parts of the world, that contribute food for mankind. Better set aside at least a day for this house alone.

Henry Shaw. Not only did he donate his entire estate for garden purposes, but he provided for its care and development, an endowment fund of several million.

Under the advice and guidance of such famous botanists as Asa Gray and Sir William Hooker; Mr. Shaw started in 1859 to form the nucleus of a collection of trees, shrubs and flora, which today are so complete as to be like a vast outdoor library, where you can roam at your will and read the titles and brief information on each specimen.

If you have the inclination to study plant formations in all its delightful divisions, you will find in the Museum Building a wonderful Herbarium valued in the hundred thousands.

If you would be still more serious in your studies, you can go to the School of Botany at Washington University, also endowed by Mr. Shaw, as but another feature of his far reaching plan.

For years, one of the points of interest in the gardens has been the greenhouses, with their exhibits covering a sur-

prising breadth of plant representation.

As the garden grew; and that part immediately facing Floral avenue was brought to its present beautiful formal floral expression; the inadequacy of the old greenhouse became glaringly evident.

And so it was that the Pierson U-Bar Company, of New York, was given the contract to build a horticultural building, which should, beyond all argument, surpass anything of its

kind ever erected.

Not only does it surpass in breadth of conception, but in its classic architectural interpretation.

Located as it is, on a rise of ground, you catch alluring glimpses of it from practically every approach.

The effect is particularly beautiful as you come up Floral avenue and pass through the main entrance.

So imposing—so extensive is it, as to be awe inspiring.

You find yourself viewing it from different locations, in an endeavor to grasp the fulness of its conception. You strive to form an opinion of which is the most pleasing—the view of its Athens Temple-like entrance of majestic columns, reflected entrancingly in the water; or the rear with the expansiveness of the big wing houses and their accented architectural effects.

Finally you give it up and come to the conclusion that to fully grasp its beauties, you must see it again and still again. So you temporarily surrender and enter the big central house, with its graceful glass roof, arching high above you.

Outside, you left the trees leafless; in here you are suddenly transported to the tropics with its wondrously luxuriant growth.

You wander down palm lined walks. You start by reading the names of the specimens, but are finally overwhelmed and conclude to just walk through this time and promise yourself later on, the joy of countless visits to "really see things."

From the garden of the tropic, you pass across a bridge to a fern landscape, where there are hills and dales, grottoes and even a babbling brook. From above, are hanging ferns

and pendulous vines.

Here you linger until the lengthened shadows tell you that the afternoon is nearly spent. But still you linger. The soft light of the fading day brings out unthought of beauties. You feel very content, very grateful for the lengthened shadow of this big broad-minded man Shaw.

You, however, finally hurry to the other wing house and take a hasty glimpse at the garden of blooming flowers; and come away leaving the fulness of that joy for another day.

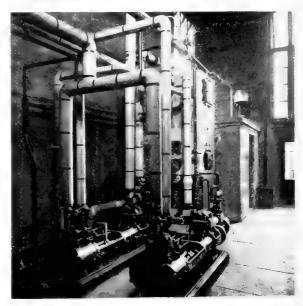
And so you pass out the massive main entrance, across the sleeping formal garden, through the gateway and down the avenue.

You glance back; and in the shadowy twilight mist, the building ceases to be glass. It resolves itself into a wondrous Temple to Flora—a vision from those days of the ancients when civilization was at its highest and art at its supreme pinnacle.

And you feel greater than ever, just how great is this lengthened shadow.



The heat is supplied by three 205 horse power Heine Safety Boilers. The chimney is 60 feet in diameter at the bottom and 100 feet high.



The heating is done by the vacuum system. This shows a glimpse of the pumps with feed water tank at back,



A tunnel cornects the Power Plant with the greenhouses. In addition to carrying the heating mairs, it forms a means of inter-communication and is large enough to run a cart through.

THE

# GARDENERS' CHRONICLE

OF AMERICA.

Published by

## THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK. MARTIN C. EB L, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50 Forcian, \$2.00

Entered as second class matter Nov. 3, 1914, it the Post Office at New York, N. Y., under the Act of Mirch 3, 1879.

Published on the 15th of each month. Advertising forms close on the 10th preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### NATIONAL ASSOCIATION OF GARDENERS

President, Vice-President, Treasurer, J. W. EVERITT, Glen Cove, N. Y. W. S. RENNIE. Ross, Cal. JAMES STUART, Mamaroneck, N. Y. Secretary, MARTIN C. EBEL, Madison, N. J.

Peter Duff, Orange, N. J., William Kleinheitz, Ogontz, Pa., Win Turnet, Mendham, N. J.; Geo. W. Hess, Washingter, D. C., John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1916 -Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Reach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917--A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

To serve as directors for three years, until January 1, 1918-William H. Waite, Yonkers, N. Y.; William-N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President,
GUSTAVE H. AMRHYN,
New Haven, Conn.

Secretary-Treasurer, ROLAND W. COTTERILL, Seattle, Wash. Vice-Presidents,

JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

CARL W. FOHN, JOHN HENDERSO Colorado Springs, Colo. Montreal, Canada CHARLES HAIBLE, J. H. PROST, Newburgh, N. Y. Chicago, Ill. JOHN HENDERSON,

Vol. XIX.

FEBRUARY, 1915.

No. 2.

Is gardening superseding the tango, bridge whist and pink teas? If the increase in garden clubs and the popularity of horticultural lectures in society circles are to be accepted as a criterion it would seem so.

The past season has witnessed material growth in garden clubs throughout the country and the demands for lecturers on horticultural subjects have never been so marked as during the present winter months.

Illustrating the interest manifested in horticulture among society folks, at the present time a benefit is being promoted for welfare work in New York City which comprises a series of subscription lectures on horticulture to be delivered by one of our prominent amateur gardeners.

It has become quite a fad in suburban communities to provide entertainment, at morning and afternoon home socials, in the nature of a talk and general discussion on gardening or on a specific subject relating to it. This is not confined to country homes, for many of these lectures have also been given in the homes of prominent people and some of the leading clubs and lecture rooms

of colleges in New York City during the fast few months, all of which have been well attended by interested audiences. 1 🛴

It has been remarked by those in close touch with the progress of horticulture in this country that it is still in its infancy and that a wonderful future awaits it. Everything indicates that our people are beginning to realize that great pleasure that is to be derived from working in the garden. Certainly no more elevating recreation can be chosen than that of coming in close contact with nature. It invigorates the mind and the body.

Horticulture has its diversified interests, represented by distinct classes, which enumerated, are as follows: The commercial grower, the private or professional grower, or gardener, and the amateur gardener. It is not so long ago that the amateur was regarded among the professionals somewhat in the light of an intruder, but it is not so today. It is not now uncommon for the professional and the amateur to meet in competition at some of the flower shows and for the amateur to learn that for the production of "exhibition blooms" he must enlist the services of the professional gardener, and, so, we frequently find him graduated from the ranks of "amateur grower" to a full fledged "exhibitor."

The amateur should be encouraged. (Many of them have found their first joy of the garden in a small plot.) He plods in the garden for a few sensons, becomes an enthusiast, acquires more ground—and employs a "garden laborer." He directs and works with his "gardener," but he cannot produce the quality of his more successful neighbor. He becomes discouraged and disgusted, and, finally realizes that horticulture is an acquired profession—that one may occasionally successfully specialize in but that the general up-keep of a well conducted country estate requires the services of a real gardener.

11 21 11

THE INTRUDERS WHO MEETSPOHENG THE GOLDEN OPPORTUNITY.

# NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

#### ASSOCIATION NOTES.

The National Co-operative Committee which has undertaken to provide some study courses for members of the National Association of Gardeners, who are not in position to avail themselves of college courses, is busily engaged in working out the details and trusts to be able to report its plan in the April issue of the official organ. Much detail is entailed in the working out of the plans, but the institution with which the committee is negotiating trusts to have some of the study courses ready to submit to the committee within the next few weeks for its approval,

The Essay Committee, which has charge of the president's contest for the best essay, to be submitted by a head and an assistant gardener, will report its plan for the competition in the next issue of this publication. It intended to do so in this number, but, as the committee is so scattered, the working out of the details of the competition has taken more time than it would have ordinarily required.

President Everitt, in response to an appeal that the National Association of Gardeners interest itself in the preservation of our native birds, has appointed the following committee to take up this work; L. P. Jensen, St. Louis, Mo.; David F. Roy, Marion, Mass.; Lester E. Ortis, Bernardsville, N. J.; Robert Williamson, Greenwich, Conn.: Frank R. Kuehne, Lake Forest, Ill.

Bills for 1915 dues have been sent out. The books show quite a few delinquents. Some have reported that, owing to the depressed conditions, reduction of salaries, etc., they find themselves unable to pay up their delinquent dues at the present time. These have been advised that if they will remit at least part of their indebtedness they can retain their good standing in the organization until such time as they can make up their deficiency. The Executive Committee deems it advisable, for the good of the association, to enforce the By-Laws, relative to members in arrears for dues, and will not modify its decision where a member does not show an inclination to meet at least part of his obligation to his national organization. Members in arrears will kindly make note of this.

# AMONG THE GARDENERS

#### THE GARDENERS' REUNION.

As chairman of the committees which have had charge of the annual gardeners' reunions in New York City for several years past we have decided not to hold a reunion this year, and to suggest to the gardeners who usually attend this annual event that they contribute the amount their tickets would cost to one of the relief funds for the poor of this country or for the war sufferers abroad. As there is so much suffering both at home and in European countries, we believe that the gardeners should abandon their reunion for this year and contribute their mite to suffering humanity which they would have spent had they attended our annual reunion.

With the European war at an end and with general conditions much better at home, which we hope will be the case a year hence, we can doubly celebrate at a reunion then.

J. W. EVERITT JAMES STUART.

William H. Waite, formerly superintendent of the Untermyer estate, "Greystone," Yonkers, N. Y., has accepted the position of superintendent of the E. D. Adams estate, Oceanic, N. J., succeeding George H. Hale, who resigned recently.

Jos. J. Krupa, for some years in charge of the N. H. Harris estate, Lake Geneva, Wis., resigned his position on February 1. A. P. Montgomery, formerly located in Massachusetts, succeeds him.

John J. Huss, superintendent of the J. J. Goodwin estate, Hartford, Conn., has been selected to take charge of the famous rose gardens in Elizabeth Park of that city.

Porter, formerly superintendent of the S. T. Bodine estate, Villa Nova, Pa., has secured the position of superintendent on the estate of Percival Roberts, Narberth, Pa.

Harold V. Vyse, for a number of years superintendent of the A. R. Whitney estate, Morristown, N. J., which position he lost some months ago due to a change of ownership of the estate, has been appointed superintendent of the S. T. Bodine estate, Villa Nova. Pa.

Robert Heggie, formerly of Chestnut Hill, Mass., is now located at "Elmhurst," Bath, Me.

Edward Brett, son of Richard Brett, Islip, N. Y., has accepted a position to go West, entering the employ of MacRorie-McLaren Company, San Mateo, Cal.

William Miller has resigned his position as gardener at Rocky Point, Plymouth, Mass., to accept a similar position on the estate of Mrs. E. H. Roberts, Bryantown, Charles County, Maryland.

F. T. Edington, former superintendent of the Arnheim estate, West End, N. J., has accepted a similar position on the E. C. Brown estate, Copake, Columbia, County, N. Y. Considerable improvement work on this place is contemplated during the coming

James Stevens secured the appointment of superintendent on the estate of Mrs. William Arnold, Babylon, N. Y. He enters his new position on March 1.

William Brown, gardener on the John D. Rockefeller estate, Tarrytown, N. Y., recently resigned his position there.

James Hamilton, formerly head gardener at Brigham Hali, Canandaigua, N. Y., has accepted the position of superintendent on the estate of Mrs. J. D. Adams, Bay Shore, N. Y.

"The many friends of William S. Rennie, of Ross, Cal., are gratified to hear that President John W. Everitt, of the National Association of Gardeners, has appointed him a member of the 

William Anderson, on the Bayard Thayer estate, South Lancaster, Mass., has one large house planted with Camellias. He is going to devote a special house to Acacias; some will be planted out, others grown in tubs. No less than 50,000 Scotch heather raised on the place have been planted out during the past two

The Boston Spring Show and meeting of the American Rose Society, March 18 to 21, will bring out a splendid show in Boston, but it will keep many from visiting the New York Show, which opens one day earlier. It is too bad that dates could not have been separated a week.

Editor Gardeners' Chronicle:

I was very pleased to see the timely letter from Mr. Arthur Smith in your last issue relative to the possible amalgamation of the National Association of Gardeners with a trade organization. I don't know what the feeling may be in other States in regard to amalgamation, but I can say with confidence that Massachusetts gardeners, and I know a good many, are solid against any such alliance.

We have everything to lose and absolutely nothing to gain from any such amalgamation. I need not go into the reasons for opposing such a coming together of bodies whose aims and interests are on such diametrically opposite lines. They were well set forth by Mr. Smith.

# Of Interest to Estate Owners

The National Association of Gardeners maintains a Service Bureau

The National Association of Gardeners maintains a Service Burean which is at the disposal of all who long require the services of efficient gardeners in their various capacities.

The association seeks the cooperation of estate owners in its efforts to seems opportunities for those engaged in the profession of gardening who are seeking to advance themselves. It makes no charge for services rendered, It endeavors to simply men qualified to assume the responsibilities the position may call for.

Wake voir randingments brown to Make your requirements known to

M. C. EBEL, Sec'y, National Association of Gardeners, Madison, N. J.

The organization some would have us amalgamate with has of late years expressed deep concern for the private gardener and his welfare. At its convention in Boston last August it had a member in the trade prepare a paper on "Why the Gardener Should Flock to the Standard of Said Organization." I took careful note of members of the trade attending this meeting, and then totaled three. Surely this indicates a wonderful admiration for the private gardeners!

In the Gardeners and Florists' Club of Boston we have a membership of four hundred and sixty-eight, pretty evenly divided between the trade and private gardeners' interests. We voted to co-operate with the N. A. G.

Can anyone tell us what benefit would come to the N. A. G. if it ever affiliated with a commercial organization, and what good any garden club could gain from such an union? The N. A. G. needs evern encouragement and should have the whole souled support of every gardener. We can co-operate with the other organizations in the trade for the advancement of horticulture, but affiliation would mean the death knell of our own body, and surely no true gardener wants that to occur. Our interests and the interests of the trade societies are as divergent as the poles, and I hope to see a quietus put on such ill-advised union as has been suggested.

W. V. CRAIG.

Brookline, Mass,

#### A PLEA FOR THE SMALL ESTATE GARDENER.

Recently much just and unjust criticism has been directed at the small estate gardener. (Note I did not say "small gardener."). It is not my purpose or intention in this article to justify or condemn this criticism, as I wish more particularly to explain my version of one reason why the small estate gardener is solden heard from and why he has reason to become discouraged.

The fault lies, in a creat measure, in the present arrangement of classes at all flower exhibits, which make it impossible for the small estate pardener to show his products with a hope of success; in fact, he cannot show at all in most cases.

A brief outline of what a gardener with a greenhouse 100 x 25 feet has to produce will explain why.

Five thousand to 10,000 bedding plants, early cauliflower, salad, tomato plants, etc., roses in three colors, carnations in three colors, snapdragon, lilies, spireas, bulbs, hydrangeas, azaleas, cyclamen, begonias, palms, ferns, gardenias, cinerarias, primulas, daisies, genista stocks, mignonette, lilacs, callas, sweet peas, stevia, poinsedias, chrysanchemums and a few more. He also has to grow most, if not all, stock and beg or borrow anything new. Many a gardener has but four Gorgeous, six Matchless and two Champion and is growing Beatrice May for white. Furthermore, he may be allowed to grow only certain colors or kinds of flowers, etc., not called for in the various classes, as the tastes or his employers vary. These flowers are for his employer, his friends and relatives, who vie with each other in securing the larger share. To fail to produce them means the gardener's dismissal.

Now Class D calls for twelve single-stem chrysanthemums in pink. He grows twenty-five at least to select twelve. Class F calls for four varieties, four colors, six each. He grows at least fifty plants for a selection and the worst is yet to come. Class O calls for four 14-inch pots, four colors—but what's the use, "it can't be done."

The same rule applies to the Spring Show, and to classes of decorative and flowering plants, forcing the grower to grow a certain kind and color, size and number. He is a good gardener and no doubt can make "two blades of grass grow where but one grew before," but he cannot produce show stuff under these conditions with only that much glass unless he is allowed to show his products from 2.500 square feet of glass in competition with somebody else's products of 2.500 square feet of glass. Why not let your schedule of prizes include:

Class A = 2.500 or less square feet of glass. Class B = 2.500 to 5.000 square feet of glass. Class C = 5.000 to 7.500 square feet of glass.

Let these classes call for anything the gardener has to show, irrespective of color or kind, to fill a certain number of square feet of floor space; decorative abouty to count also or make smaller classes of various kinds, but governed by the number of square feet of glass the exhibitor has at his command.

With all due respect to the men whose names are familiar ones in the show ring, I make bold to say that there are many gardeners on small estates who are producing more good goods to the square foot of glass than some of them are. These men should receive credit and encouragement. They will respond, and we will have more enthusiastic workers in our societies as a result. HUGH B. BARCLAY.

[Criticisms of this suggestion are in order.—Editor.]

# OF INTEREST TO ALL

#### THE MINNEAPOLIS CONVENTION GARDEN.

On account of the large amount of annual planting material required to fill the garden, which, because of the requirements for bedding plants for other parks we are not able to furnish from our own propagating plant, it seems advisable to change the layout of the garden to provide appropriate room for a larger number of perennials and other hardly plants which do not require replacing every year.

We cannot expect outside growers to furnish large quantities of plants every year to help fill this large garden, and we do not intend to ask them to do so. We are, however, not only willing but anxious to have all growers who wish to do so, make use of those display grounds to introduce and show their novelties in large or small numbers. Exhibits sent us for that purpose will be given a conspicuous place in the garden among the class of plants to which they belong. They will be properly labeled, giving the exhibitor's full name and address. We simply ask that prospective exhibitors write to us before April 1 what they wish to exhibit, so that we may reserve space for their exhibits, and that the plants be sent, freight or express prepaid, at the proper time of planting.

Our home people are taking a great interest in the garden right along, and there can be no question as to the advertising value of an exhibit at those well-kept exhibition grounds. I therefore extend a hearty invitation to all growers and introducers of novelties and meritorious plants to make use of our garden. We will do our share to grow the plants as nearly to perfector as possible and to thus serve the interests of the exhibitors and public alike.

THEODORE WIRTH.

Superintendent of Parks.

#### A NEW BOOK ON TREES.

"Studies of Trees," by J. J. Levison, M. F. Lecturer on Ornamental and Shude Trees, Yale University Forest School; Forester to the Department of Parks, Brooklyn, N. Y., gives briefly the means of identification of the more important native and exotic trees commonly found in the States cast of the Great Lakes and north of Maryland in the United States. It describes the leaf, flower, twig, wood and habit characteristics which distinguish them from other trees; and answers besides many questions which would naturally arise in the mind of a person interested in trees, such as how large they grow; under what conditions of soil and climate do they thrive best; what are the enemies and how can they be overcome; what is their value for wood and other useful products; what is their protective value; are they useful for planting along streets and in parks and in regenerating forests; how can the trees of our streets and lawns be preserved and repaired as they begin to fail from old age or other causes?

In the preface, Director J. W. Toumey, of the Yale University Forest School, says: "The author's training as a forester and his experience as a professional arboriculturist has peculiarly fitted him to speak in an authoritative and interesting way about trees and work."

The value of the book is not in new knowledge but in the simple statement of the most important facts relating to some of our common trees, individually and collectively considered.

John Wiley & Sons, Inc., New York, are the publishers. The book consists of 260 pages, well illustrated. Price 81.60.

#### A CREDITABLE ANNIVERSARY NUMBER.

At its birth ten years ago the publishers of the Garden Magazine announced it to be "the logical working out of the growing interest in the garden as a delight and pursuit for the busy people who find a new fascination in the things of the soil."

Its tenth anniversary number, the February issue, presents every indication that it has been more than successful in its mission during its ten years of life. The contents of the Garden Planning Manual, as this sper number is described, his its pages loaded with interesting subjects for the garden lover. As its publishers say, ten years ago plants were known as "trees" and "bushes" and "flowers." Today the owner of a garden knows his plants by name and demands more scientific knowledge on the culture and habits of plant life than he did a few years ago. The columns of the Garden Magazine show that this paper has recognized the growing interest of the suburbanite, and that it is catering to his desires.

We congratulate the Garden Magazine and its entire staff on what it has achieved with its tenth anniversary number.

# AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. S. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### ASSOCIATION NOTES.

President G. X. Amrylin has called a conference of Executive Committee members and association members residing near New York City to take up the question of the fixing of the date of our San Francisco convention, which our laws leave to the discretion of the Executive Committee.

The Society of American Florists has fixed its convention dates as August 17 to 20, and it seems desirable that our convention should be held at about the same time. The matter will be definitely decided before our next issue, when an announcement will be made with suggestive itineraries.

The proceedings of the Newburgh-New York convention, after considerable delay, are now in the hands of the printer, and a copy will be sent to every member in the near future. Unfortunately many interesting discussions which took place, will not be recorded because of the fact that no stenographic report of the convention was provided for and few notes of any kind were made, hence your new secretary has had to do the best he could with a collection of edds and ends in the way of newspaper clippings, rough notes and copies of papers.

If any member has 'n mind and additions or amendments to the constitution and by-laws to present to the next convention, it is well to remember that our laws provide that a copy of any change to be proposed must be filed with the secretary at least thirty days before convention date in order that a copy may be sent to every member.

Oakland, Cal., has been added recently to our honor list of sustaining members, a membership having been taken out by the Board of Park Directors of that city. Oakland is one of the most progressive cities of the Pacific Coast, as our members who attend the August convention will have an opportunity to observe, as no doubt a tour of the Oakland park system will be made a part of the programme of the San Francisco convention. Lee S. Kerfoot, the very capable superintendent, will probably affiliate with our association at the convention.

F. L. Mulford, of the Department of Agriculture at Washington, and one of our most earnest members, has submitted to the president and Executive Committee a letter of suggestion which is worthy of consideration by the membership.

Mr. Mulford's letter is in substance as follows

"You will find enclosed a copy of a memorandum of the formation of the Park Institute of New England. This association was formed to meet certain needs I have long telt the American Association of Park Superintendents should meet, to wit: To make available to each of us and to the public, knowledge and experience arising from the methods and managements of parks and plangrounds by cities, Of course, in our annual meetings could not cover the field as this institute can in New England, but the formation of an association of this sert shows how its need is felt by the nounger men in park work.

"I know I am not alone in our association in thinking that we need just this sort of coming together, and I am bringing this matter to your attention because I feel that our association has

been on the wrong track.

"You man recall that while secretary I endeavoyed, with but slight success, to make our meetings more of a time for papers

"I still feel that the association should devote itself seriously to the presentation and discussion of topics of mutual interest. and that too much of the time of our meetings has been devoted to sociability and to tours of inspection. Valuable as these features are, they should not be obtained at the expense of meetings for discussions.

"The suggestions that I made at the Boston meeting looking to two distinct classes of membership was with this same idea in view, that the trained park men of experience should direct the affairs of the association, and that the newer men of inexperience as well as those interested in the subject from an amateurish standpoint, should have an opportunity to support the association, attend its meetings and take part in its discussions, but that the control of the policies of the association should remain in the hands of the experienced park men."

Mr. Mulford's ideas may not meet with the approval of all of our nembers, and the se reary would be pleased to become en tributions on the subject, which will be given publicity through

these columns in subsequent issues.

The organization of branch or auxiliary associations and the reduction of social features at conventions are subjects which are not new to the association, but both are worthy of serious consideration.

# PARK DEPARTMENT PERSONALS

Theodore Wirth, the genial superintendent at Minneapolis, who is certainly one of "the pillars of the church," as far as the association is concerned, is already beginning to think about the convention at San Francisco, and is urging his friends to come West via the northern route.

The Minneapolis Park Commission has a reputation for entertainment and hospitality which is well known to many of our members, and as they stand ready to repeat members Westward bound who do not put Minneapolis on their route will miss a treat. Mr. Wirth has a habit of attending conventions every other year, his capable assistant, C. A. Bossen, attending on the off year, but they are both such good members as well as such good fellows, that we hope they will break the rule this year and

L. P. Jenson, superintendent of grounds at Busch Place, St. Louis, has been spending many of his winter evenings, delivering illustrated lectures on the parks of the country before his fellow citizens, and thus arousing interest in local park development. Mr. Jenson was not with us at the New York session, the first convention he has missed in years, but states that he will sure be at San Francisco, and will have a bunch of applications from superintendents in Southern cities. Did you read Mr. Jenson's article in the January Chronicle on "The Relation of Birds to Parks"? If not, you missed something good.

George W. Hill, for many years superintendent at Tacoma, Wash., will in a future issue have an illustrated article on the park system of that wonderful Puget Sound city, which he hopes will assist members in arriving at a conclusion to go to San Francisco via the Pacific Northwest.

Tacoma has taken out a sustaining membership in the association, and can be counted upon to show a good time to those who

may visit that city.

At Seattle and at Portland you can see Mount Rainier in all its glory, but the only place in the country from which you can see Mount Tacoma to advantage is from Tacoma.

Laurie D. Cox, until recently landscape engineer at Los Angeles, has turned up at Syracuse, N. Y., where he has accepted a position as assistant professor of landscape engineering in the Now York State College of Forestry, the first institution in the country, according to Mr. Cox, to specialize on such a course,

William R. Reader, superintendent at Calgary, Canada, has signified his intention of becoming a member of the association and will probably be at the San Francisco convention.

Robert R. Moss, of Rosemont Farm, Berryville, Va., is desirous of securing an assignment as superintendent of some public park or small park system. Mr. Moss has had twenty-five years' practical experience on private places, and is ambitious to enter public service.

A circular letter of inquiry has been sent by the secretary to our members in the larger cities, seeking data regarding the operation of park concessions and methods and policies in use in dif-ferent cities. This will make a most interesting subject for a future bulletin as the problem is one which is under consideration in many cities.

J. J. Levison, former secretary of the association, forester for the Brooklyn Park Department, is the author of a recently published book "Studies of Trees." which is just about the best thing in the way of a tree book that has ever been published. No. gentle reader, this is not an ad.; just a word of tribute to an author and fellow-member who has put out something worth

If you would like to see your city, your work or yourself mentioned in these columns, just drop a few lines to the secretary and tell him what you are doing or what you have on your mind which might be of interest to other members. The secretary would be delighted to have to answer a letter from every member every month, and perhaps the correspondence might produce some chatter which would make these columns more interesting.

## DYNAMITE AS A SOIL BUILDER.

A quarter of a century ago, a fruit grower in California, in digging holes for some fruit trees, came upon hardpan which was nearly as tenacious as cement. He used some dynamite with which to break up the hardpan in order to get the holes deep enough to plant the trees at a right depth. It was discovered that the trees planted in the dynamited holes made a much larger growth, and better withstood the dry weather that followed. From this discovery a general interest has grown in this method of preparing the soil for trees.

While there are many instances where soil conditions have been improved by the use of dynamite, this does not follow with all soils, and it thus becomes important to know and to understand the distinctions, writes George T. Powell in *The Field*. In a soil that contains 65 per cent. clay, with a yellow clay loam subsoil, one-half a stick of 20 per cent. dynamite put down two and a half feet will loosen the top soil for six feet around and five feet deep. The 20 per cent, strength is better than 40 per cent., as the slower explosive leaves the soil in better condition

Dynamite, however, should not be regarded as a digger of holes for planting trees, as a properly placed tree planting charge should be tamped in to insure the maximum breaking effect of the subsoil, and this tamping prevents the excavation of a hole for planting the tree, but the shock of the blast makes excavating with a shovel easy.

It is important to follow this plan in setting out trees. After the blast, shovel out the top soil and set it to one side, then shovel out the subsoil until the point where the dynamite cartridge was exploded is reached. As a rule, a cavity will be found one to two feet in diameter; it is important that this be filled with subsoil. If the tree is planted without doing this, the subsoil will gradually drop down into the hole, leaving the tree roots suspended in the air, when the tree will die. Having filled the cavity, subsoil should be shoveled in to a point just below where it is desired to place the roots of the tree. Then put in half of the top soil. Lay the roots on this top soil in their natural position and cover them with the remaining top-soil and pack it in firmly by treading it with the feet. Then fill the remainder of the hole with subsoil.

Several effects are produced that benefit the trees planted in soil so treated. Excellent and quick drainage is provided for the roots, which is essential to their health and vigorous growth. A heavy, soggy or over-wet subsoil will retard the growth and bearing of trees by several years, as many of the fine feeding roots will perish when confined for several weeks in such soil. The breaking up and loosening of a heavy subsoil may be done much more effectively through the use of dynamite than is possible by digging holes three feet in diameter and fifteen inches deep with a pick and spade, as is usually done. The cost of digging the holes will be from two to three cents per tree, against five to six cents for the dynamite, but the dynamiting will be far cheaper when the greater growth of the trees and the less percentage of loss following dry periods are considered

The subsoil should be dry at the time of the blasting, otherwise the effect is detrimental rather than beneficial, as a blast in wet subsoil throws the dirt high in the air

and plasters it against the sides of the hole, failing to crack the subsoil as it should, several feet around the hole.

If the planting is done in the spring, it is necessary to wait until the subsoil is reasonably dry. Trees properly planted with dynamite will not die, but will grow tapidly right through the dry summer, and will bear fruit one to two years earlier than trees planted with a spade.

The next important benefit that follows from the use of dynamite is the more thorough aeration of the soil that is produced. An abundance of air in the soil is high-

ly essential to plants.

The roots of trees perform the necessary function of taking up plant food that must first be made soluble, when through the circulation of sap it is utilized in making new layers of wood, foliage, fruit buds and fruit. The oxygen in the air performs an important part in the processes going on, and in the changes which take place in the chemical constituents that are present in every grain or atom of soil, and which are necessary for the growth of all vegetation.

Where the soil is heavy, and in poor physical condition, trees are more subject to diseases that not only retard their growth, but to a certain degree make them unfruitful. Therefore, the better the soil is prepared by making it more open or porous, and capable of taking in the air freely and abundantly, the greater will be the degree of health, vigor, growth and productiveness.

Through the use of dynamite in the planting of an extensive orchard of apple trees on a New Hampshire farm of quite heavy loam soil, a very satisfactory growth was obtained the first year, which was even more pronounced the second. The soil and subsoil were favorable

for this method of preparation.

Where the subsoil is of an open or porous character, with a sandy loam top soil, the use of dynamite is not advisable, for such subsoil should not be broken. The foundation will become too loose or soft. The drainage will be made too excessive; the subsoil moisture will not be so usable or effective in its upward movement, because its medium has been broken up and changed, in consequence of which the trees will suffer severely in times of prolonged drought, and during heavy wind storms they will be blown over, for their roots will not be held by a sufficiently firm soil.

The use of dynamite is practical and economical, but careful surveys of the soil and subsoil should first be made, to ascertain whether they are suitable for the ad-

vantages to be gained by this method.

These are some of the conditions that need to be understood in the preparation of the soil for tree planting.

The method of blasting for and setting trees is about as follows, depending somewhat upon the character of the soil, depth of hardpan, etc.:

The holes are easily made by driving a pointed steel bar, 1½ inches in diameter and 4 feet long, to a depth from 2½ to 4 feet, as the depth of the hardpan calls for. The bar should not be driven entirely through the hardpan, but within from 6 to 12 inches. A one-half pound stick of 20 or 25 per cent, dynamite is primed with cap and fuse and carefully lowered and tamped. The first six inches of earth should be tamped very light-Iv and the balance should be tamped as tightly as can be done with a wooden tamping stick. The charge is now ready to explode, which is done by lighting the fuse. After the explosion, a barrel-shaped chamber is usually found 12 or 18 inches below the surface. This should be filled to a proper depth for the tree with rich humusbearing earth and the hole is ready. Set the tree and fill the balance of the hole with rich earth and it has every chance to live as far as its root bed is concerned.

# **QUERIES and ANSWERS**

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.
Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

atter. Nothing will tend to better fellewship than helping each other. Take advantage of this "Question Box."

Can you give me any information through your "Queries and Answers" column about the cultivation of Gesnerias? Should they be started up in the spring or fall?-H. H. A., Ohio.

Gesneria should be started in the spring. Its culture is vary much like that of the Glexidia or Achinenes. If some eld plants, or tubercles, are at hand, having been placed somewhere in the hothouse or dry place, they should be started as soon as n w life is noted in them, about this time, or a little later in the year, When the new growth reaches about half an inch to an inch in height, even in the same pans or pots in which they were wintered, it is always advisible to plant them in smaller tere yers or shallows with very good drainage, using light sandy soil with some leaf mold. The tubercles should be planted somewhat higher, so that the new growth comes over the soil as they rot very easily. As the small pots are hard to keep well moistened and the watering must be very carefully done, the best way to put some white moss (sphagnum) around each new growth, which holds the moisture and damp atmosphere.

Temperature from 65° at start to 70° and over when the growth

progresses. Later fresh air will give the plants a more healthy appearance, but it must be *giren* very *carefully*, as the plant loves warmth and dampness. Good judgment is necessary in the shading, as the velvet green hairy foliage is very easily destroyed by too much sun.

When well-rooted shift from smaller to larger pots even after two or three plants are planted together. This should not be overlooked as well as feeding with some thin liquid cow manure which will help in developing better growth and better flowers.

Propagation can be done in different ways—from seeds about this time of the year—from tubercles dividing them—from single shells of tubercles—also from single foliage—in either case good results can be accomplished with proper care and attention. These beautiful plants should be more grown, especially the new hybrids as they are very fine and attractive,

Madison, Conn.

FRANK JOSIFKO.

The Gesneria, a most interesting family of plants, by regulating their rest period may be brought into bloom at almost any time. They may be propagated by cuttings of three kinds: First, the young shoots as soon as they are three inches long springing from the old tubers, as these are the best; second, leaves taken off with a bud at the base; third, by leaves without buds. There is an advantage in the first and second methods that the cutting if struck early in the year will, with moderate care, flower the same year. Whichever cutting is used put it in sand in the propagating bench under a bell glass or hand glasses with bottom heat to strike them quickly. A moist, warm heat is necessary. A moist cold place would rot the cuttings immediately.

Fibrous loam, turfy peat and half-decayed leaves in equal parts with a due portion of sand, well mixed but not sifted, is the best soil to use. Pot a portion of the bulbs in January and place them in heat, giving a little water. Temperature should be 60° to 80° with a second batch at the end of February to have

a succession of blooms,

In winter all they require is to be kept in these pots in a place where neither frost nor wet can reach them at a temperature not below 45° or above 55°. If the temperature is much lower they are apt to rot and if higher to start into growth.

Hingham, Mass. JAMES S. BACHE.

From the professional gardener's point of view, which are easiest to manage and give best results, own root, or grafted roses?-A. K. W., Massachusetts.

#### **New Everblooming WATER LILIES**

Water Lilies every day in the year. This is now possible with these new Hybrids. No better flowers for enting, shipping or lasting qualities. Awarded a Silver Medal by the Philadelphia Hortenlitural Society, Nov. 3, 1914. Certificated at New York, Lake Geneva, Wis, and Chicago. Everything in the line of new, rare and choice Nymphicas, of all species and varieties known in cultivation.

Send for my book "Making a Water Garden", 55; prepaid. My (alalogue will be mailed free on application.

WM. TRICKER, Water Lily Specialist, ARLINGTON, N. J.

# Chrysanthemums – Carnations—Roses

NOVELTIES FOR 1915

If you did not receive our 1915 price list write us

Elmsford Nurseries-Scott Bros., Elmsford, N. Y.

PACHYSANDRA TERMINALIS evergreen trailing plant—unexcelled for border or cover for shady places.

JAMES WHEELER,

Natick, Mass.

# ORCHIDS

We are Specialists in Orchids, we collect grow, import, export and soil orchits evolutively. If you are in the market for Orchids we soilent your inquiries and a research Catalogues and special lists on artificial

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N J.

## THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES NURSERIES.

There you will fit all kinds and you can take your pick from the best that so grown. Maximum Quelity at Minimum Prices. Write W. R. Cheas Mapager

THE PALISADES NURSERIES INC., SPARKILL, N. Y.

# VAUGHAN'S SEED STORE

A 1915 NECESSITY Vaughan's Firebird Cannas, \$1.25 each

43 Barclay St., New York

31-33 W. Randolph St., Chicago

# HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

# D. HILL NURSERY CO.

Evergreen Specialists,
Largest Growers in America, Box 305 Dundee, Ill.

#### ORNAMENTAL IRON WORK

For Lawns and Gardens.

Chas. C. Force & Son,

LET US ESTIMATE ON YOUR WANTS. Madison Iron Works, Madison, N. J.

# HARRY BALDWIN

idanufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS

MAMARONECK, N. Y.

# E. A. LIPPMAN Manufacturer of GREENHOUSE SHADING 6 HIGH STREET, MORRISTOWN, N. J.

Hyde Park-on-Hudson, N. Y.

E. A. Lippman: We have used your Greenhouse Shading for the past year and it gave entire satisfaction.

H. C. SHEARS, Supt. for Frederick Vanderbilt, Esq. io io sil ... diffur de unido.... denu difini 🖥

## GARDENERS DIARY

International Flower Show. Grand Central Palace, New York, March 17-23, 1915.

American Rose Society. Annual Show, Horticultural Hall, Boston, Mass., March 18-29 1915

Massachusetts Horticultural Society. Annual Spring Show, Horticultural Hall, Boston, Mass., March 25-28, 1915.

American Sweet Pea Society. Annual Sweet Pea Show, Newport, R. L. July 8 and 9, 1915.

American Gladiolus Society. Annual Gladiolus Show, Newport, R. I. August 48 and 19, 1915.

Horticultural Society of New York. Aumual Fall Show, New York, November 4.7

Pennsylvania Horticultural Spring Show. Horticultural Hall Pinladelphia, March 23 25.

#### NEW LONDON HORTICULTURAL SOCIETY.

The first regular meeting in the new year of the New London Horticultural Society was held January 15. A good number turned out, this being the first meeting under the new officers. President Alfred Flower presided. It was decided to hold two shows this year rose show sometime in June, and a chrysanthemum and fruit exhibition in the fall. The society has had a very successful time in the year just gone, and interest in the same has greatly increased, which shows good for the year we have just entered upon. After the usual business routine President Flowers introduced Edward Smith, one of the city florists and a very successful carnation grower. to give a paper on the culture of carna tions. Discussion followed, and a very pleasant and instructive evening was spent.

The tables were arranged with vases of several varieties of carnations exhibited by the following: Edward Smith, Herbert Lickman, grower for Harkness Estate; Superintendent S. Jordan, Gustav Newman Mitchell Estate. Alfred Flowers exhibited some fine grown fresias. John Maloney, Primula Malacoides.

The next regular meeting will be held February II, and is to be in charge of lady members of the society. A local lady is to give a lecture on our native birds and their uses. Refreshments will be served to all the members, in charge of a committee under "Mrs. E. Smith." The Essay Committee would be glad to hear from any of our gardening friends who would like a trip to New London to give us a talk on any subject relating to horticulture. Dates are filled up to May. STANLEY JORDAN.

#### NORTH WESTCHESTER HORTICUL-TURAL AND AGRICULTURAL SOCIETY.

Thursday evening, January 21, was a red letter evening in the annals of above society in the social line, when they held their thirteenth annual dinner at the Newcastle Inn, Mt. Kisco, with that unapproachable toastmaster, Mr. J. Austen Shaw, to whose admirable tact, wit and humor, the society owes largely the success of this affair. Preceding the dinner was a short business meeting, at which a vote of condolence was passed for Mrs. McTaggart, of

Kearney, N. J., on the great loss she sus- THE SOUTHAMPTON HORTICULTURAL tained in the tragic death of her dear son and our brother member, the whole-souled, generous-hearted and much-regretted Chas. McTaggart.

Following are some of the features of the evening: Opening address by Mr. Shaw, who felicitated the society on its prosperous position and the work being done by it for the uplift of the gardening profession. Mr Shaw proposed the toast "Our Society, which was responded to by Mr. Hall, president, and Mr. James Andrews, past president, in a very appropriate address from each welcoming their friends and wishing all a good time.

Mr. Shaw proposed a toast to the revered memory of the friend of everyone in and outside the gardening world with whom he came in contact, our much-regretted friend and late associate, Charles McTaggart. The

to ast was drunk in silence.
"Seed Trade," spoken to by Mr. Wm. Rickards and Al Rickards, of New York, and Mr. W. J. Collins, of Boston, all in their humorous style of which they are past masters.

"Horticultural Press." Mr. Shaw took up this toast in the absence of Mr. Martin C. Ebel, of Madison, N. J., who was unable to attend owing to press of work and other engagements, and expressed Mr. Ebel's thanks for invitation, and then went on portraying the place the horticultural press holds in the gardening world today.

Town of Bedford. Responded to by Judge Robert Clark, Town Clerk Merriam and Commissioner O'Brien, all extolling the society for the efforts they are putting forth for a brighter and cleaner and more

artistic town in future.
"Town of Newcastle," to which a fine response was made by Supervisor Washburn, Town Clerk Haight and Tax Collector Heller on the growth and influence of the society.

"Our Out-of-Town Friends." Mr. Van Melee hardled this subject in a capital manner, thanking the society for their consideration towards the guests from out of

"Lav Members of Society," Dr. Plageman, V. S., spoke of the lay member in a scholarly manner as the Doctor generally does on such occasions. Well received and applanded.

Our Host and the Ladies." These two toasts were coupled, and Mr. D. M. Pardee, the genial host of the Kisco House, made the speech of the evening.
"The Plain Gardener." The secretary,

M. J. O'Brien, spoke to this toast by welcoming all present and wishing all a good time, going on some length on the position in which the gardener is placed in the community which leaves room for betterment, showing what can be done by local bodies with good executives in furthering the gardener and gardening to a higher plane. Also spoke on the origin of the society, how from a handful of earnest men the nucleus of the North Westchester Horticultural and Agricultural Society was formed in January. 1897, and has to day 94 good members. Among those present was Mr. Mex. Marshall, the original founder of the society, of whom Mr. O'Brien spoke so favorably that Mr. Shaw asked Mr. Marshall to say a few words, which he did with much applause. Alex, is a man of few words but a giant in gardening and gardeners' organizations.

The above programme was interspersed with songs and recitations during the addresses, and a fine musical discourse was rendered on the piano by Prof. Eggleston.

Letters of regret were read from Mr. Ebel, Mr. Totty and Mr. Sam Burnett, who through sickness, etc., could not be present, at the exhibition: M. J. O'BRIEN, Secretary.

# SOCIETY.

The annual banquet of the Southampton Horticultural Society was held in the Commercial Hotel, Southampton, on January 20, when there was a large attendance of members and their wives, who sat down to a some sixty persons present.

The president, Martin McLoughlin, presided at the tables, and he introduced the many speakers, including Wm. G. Ganersall, of Nyack, N. Y., who was listened to with great interest; Walter J. Jagger, of Southampton, who gave an interesting paper on "The Value of Education to the Farmer," and was heartily applauded, and W. D. Van Brunt, who gave a very pleasing address on Southampton.

The professional entertainer from New York, W. Hobson, kept the members in continual laughter with his amusing skits. The music was supplied by the local orchestra. which gave some fine renderings, and certainly helped to add great pleasure to a most interesting evening.

The very spirit of the banquet gave only one impression, that the Southampton Horticultural Society is united to carry on the good work of the past with greater vigor in the future.

At the regular meeting on January 21 it was decided to hold the annual show in July. The particulars will be published

Mr. C. E. Dinon and Mr. F. Burling were elected as active members of the society.

STANLEY R. CANDLER, Corresponding Secretary.

#### HORTICULTURAL SOCIETY OF NEW YORK JANUARY EXHIBITION.

The January exhibition of this society was held on Wednesday, January 20, at the American Museum of Natural History. The larger attendance of gardeners was gratitying, this perhaps being due to holding the exhibition on Wednesday instead of Saturday. There was a good display of flowers, especially of orchids. Two of the most attractive exhibits were made by Mrs. F. A. Constable (Jas. Stuart, gardener). One of these was a vase of cut blooms of Buddleia Asiatica, tastefully arranged, and making a striking display; the other, near it, a vase of Plumbago coccinea. flowers of the Buddleia made a striking contrast with the bright red blooms of the Plumbago. The displays of cut orchids by Lager & Hurrell and Clement Moore were exceptionally fine.

The next exhibition will be held at the same place on Wednesday, February 17. Prizes are offered for cut orchid blooms. roses, sweet peas, schizanthus, antirrhinum, freesias and narcissus. Prizes may also be awarded for other interesting and worthy exhibits not provided for in the schedule. Schedules will be sent on application to the secretary, George V. Nash, New York Botanical Garden, Bronx Park, New York

 $\dot{\Lambda}$  meeting of the society was held at 3:45, followed by a lecture at 4 by William N. Craig, on "A Year's Vegetable Supply from the Home Garden." This was listened to by the most successful lectures ever given here, interest was which was presented by the lecturer in a simple, practical way, which satisfied the

desires of those present, judging from the gathering surrounding Mr. Craig at the close of his talk. Following is a list of the prizes awarded

Vasc 100 blooms 1, Scott Bros.

Sakowich, for Hyde Park.

Vase of 12 white—1, G. D. Barron (James morning. Linane, gardener); 2, D. G. Reid (A. W. Golding, superintendent).

Vase of 12 Enchantress shade 1, Adolph Lewisohn (John Ganning, superintendent); 2, D. G. Reid.

Vase of 12 Windsor shade—2. John. I. Downey (Thomas. Ryan, superintendent): first not awarded.

Vase of 12 Mrs. C. W. Ward shade-1.

D. G. Reid.

Vase of 12 dark pink—1, Adolph Lewisohn; 2, G. D. Barron.

Vase of 12 scarlet—1, Adolph Lewisohn; 2. D. G. Reid.

Vase of 12 crimson—1, D. G. Reid.

Vase of 12 blooms, variegated-1, Adolph Lewisohn.

Vase of 50 blooms, arranged for effect, one or more varieties-1, D. G. Reid; 2, Frederick Sturges (Thos. Bell, gardener).

Vase of 100 Sweet Peas-1, Mrs. F. A. Constable.

medal.

Vase of Schizanthus—1, Adolph Lewisohn. Collection of cut Orchid blooms-1, Lager & Hurrell; 2, Clement Moore.

Collection of cut Orchid blooms -1, Mrs. F. A. Constable.

Special prizes: G. D. Barron, vase of Mignonette, cash; H. Fred Byxbee, four vases of Daphne odorata, certificate; Fred erick Sturges, vases of miscellaneous flowers, cash; T. D. Leonard (E. Leandle, gardener), vase of Freesias, cash; Mrs. F. A Constable, vase of Buddleia Asiatica, certificate and cash; vase of Plumbago coccinea, cash; Mrs. H. Darlington (P. W. Popp, gardener), for new Carnation Mrs. Darlington, honorable mention; G. E. Baldwin & Co., for plant of Cattleya Trianæ, silver medal; Clement Moore (J. P. Mossman, gardener), collection of orchid plants, silver medal and cash; R. & J. Farquhar & Co., Boston, plants of Azalea Kampferi, silver

GEORGE V. NASH, Secretary.

## ANNUAL FALL EXHIBITION.

The Annual Fall Exhibition of the Horticultural Society of New York will be held on November 4 to 7, inclusive, at the American Museum of Natural History. schedule of premiums is now being prepared, and as soon as ready announcement will be made in these columns.

This is the big autumn show around New York, and it is hoped that other societies in this vicinity in fixing the dates of their shows will avoid this period in so far as possible. Such action will accrue to the hest interests of all.

GEORGE V. NASH, Secretary.

#### MANCHESTER, MASS.

The annual banquet of the North Shore Horticultural Society was held at the Town Hall January 27. There was an attendance of 200. Members of the Banquet Committee, Wm. Till, P. J. Gilmore, Paul Maillard, Axel Magnuson, James Morton and M. Mackay, decorated the hall and tables beautifully, and the menu left nothing to be desired. E. H. Wetterlow presided at the postprandial exercises and extended a cordial greeting to all present. Thomas J. Grey responded for the Gardeners' and Florists' Club of Boston and the Massachusetts Horticultural Society in his usual humorous strain. Piano selections were furnished

New Carnation, bronze medal to Joseph | ning and made an eloquent address, after | which dancing was enjoyed until early

#### MENLO PARK, CALIF.

The annual election of officers of the Menlo Park Horticultural Society was held Thursday evening, January 21, and the following officers were elected to serve during the ensuing year: Henry Goertzhain, president; David W. Slade, vice-president; Percy Ellings, secretary; Arthur Bearsby, financial secretary; George Nunn, treasurer. Thomas Templeton was elected trustee, succeeding James T. Lynch, whose term expired. An exhibition committee to serve for one year was appointed as follows: John M. Daly, Percy Ellings, David Bassett, George Nunn and David W. Slade. Percy Coff and John Aitken were selected for ushers. Several new members were admitted and a few applications for membership were received. The society decided to hold a smoker at the next regular meeting, and President Goertzhain appointed a committee to make the necessary arrangements. The exhibits made were varied and excellent. As John M. Daly and Chas. Ehrich tied for the most points for the best display during the past year it was decided to award a gold medal to each.—American Florist.

#### NEWPORT, R. I.

Under the joint auspices of the Newport Horticultural Society and the Garden Society, H. L. Frost, of Boston, Mass., gave a lecture January 26, on injurious insects. The stereopticon showed the pests in their various stages of growth and localities they have ravaged. Among the varieties treated upon by the lecturer were the gypsy moth. tent caterpillar, brown tail moth and boxwood minor. In regard to the latter, he said it was found mostly in Newport, and the large audience present gave the lecturer rapt attention throughout his discourse. At the close, warm applause showed the appreciation of his hearers. At the next meeting of the Newport Horticultural Society the matter of swelling the building fund will be discussed, and from all accounts the discussion is liable to bear fruit, as many members seem to think that the time is ripe to build. The society has completed arrangements for the coming to Newport of the American Sweet Pea Society. This show will take place at the Casino July 8-9. Alexander McLellan has been appointed exhibition manager, and the schedules are now being distributed .- Exchange

## NEW JERSEY FLORICULTURAL SOCIETY.

The regular monthly meeting of the New Jersey Floricultural Society was held on Monday evening, February 1. There was a good attendance, considering the stormy The exhibits were of fine quality weather. and added to the pleasure of the evening.

The awards were as follows: Vase of Sweet Peas, Mrs. A. J. Moulton (gardener, Arthur Jackson), 63 points; Primula malacoides, same, 65 points; Epiphyllum truncatum, Mrs. Wm. Barr (gardener, Emil Panuska). 75 points; vase of Carnations, Peter Hauck, Jr. (gardener, Max Schneider), 80 points; Begonia Cincinnati, same, 70 points; vase of Roman Hyacinths, same, 55 points; by E. A. Rand, readings by Miss Area Farron, while Prof. Brignate, sleight of hand humorist, entertained for half an hour with mystifying tricks. The Rev. W. H. Rider, D. D., was the principal speaker of the evelone in the same, 55 points; bunch of Violets, same, 65 points; Cattleya Trianæ Virginale, Jos. A. Manda, not for competition, 90 points; Cattleya Trianæ, Joseph A. Manda, cultural certificate; Primula malacoides, Freesia Purity, plate of

# Shorburn's Seeds



There is no pleasure like watching things grow.

EPENDABLE seeds mean more to those who "grow for profit" than to other folks.

Our 1915 Spring Catalogue has not only the real "breath of the spring in it," and "the love of growing things," but a wealth of information prized by the practical man.

> If you have not received your copy it is waiting for you. Kindly send for it, and let us know your requirements, and how we may be of service to you.

J. M. Thorburn & Co. 53U Barclay St., through to 54 Park Place **NEW YORK** 



Just to look through its pages will make you long for spring to come

mushrooms, Mrs. A. J. Moulton, cultural certificate. Judges: Edgar Bourne, Fritz Berglund, Geo. W. Strange. GEO. W. STRANGE, Secretary.

## LENOX (MASS.) HORTICULTURAL SOCIETY.

The twenty-first annual ball of the above society was held in the Town Hall on January 22. The hall was prettily decorated, and Clarke's orchestra of Pittsfield was engaged for the evening. The concert which they rendered at the opening was of a high order. President G. Breed led the grand march, followed by the other officers. A good and representative crowd was present, and supper was served at 12 o'clock. The success of the evening reflected much credit on the following who acted as committee of arrangements: J. Clifford, G. Ferguson, H. Peters, G. Thompson and F. H. Butler. J. CARMAN,

#### OYSTER BAY HORTICULTURAL SOCIETY.

Assistant Secretary.

The monthly meeting of the Oyster Bay (N. Y.) Horticultural Society, was held in Fire Hall, on Wednesday, January 27. A large attendance welcomed our new president, Mr. Robinson. Charles Mills showed a fine plant of cineraria and F. Kyle some very well grown sweet peas, each capturing the societys' monthly prize. Considerable discussion was given Mr. Duthie's suggestion that a member in good standing moving into a new territory be accepted in the nearest local society without the usual formalities. Geo. C. Woolson gave a very interesting talk on hardy perennials, calling special attention to some of our native plants and trees.

Four new members were elected and reports read show the society to be in flour-

ishing condition.
ANDREW R. KENNEDY, Secretary.

# TARRYTOWN. N. Y.

The monthly meeting of the Tarrytown Horticultural Society was held Wednesday evening, January 20. As the monthly prize was to be awarded for the best flowering plant, a good many well grown plants were exhibited. A. Weeks captured first prize with a fine specimen of Chorizema cordatum splendens. Some good primulas and cyclamens were shown by J. Elliott, T. Morris, M. Jamison and G. McIntosh. H. Nicholls was awarded a certificate of merit for seedling Dracæna Glenview, a cross between amabilis and terminalis. A lively discussion followed the examination of ex-Mibits, taken part in by J. Bradley, J. Mooney, T. Morris, Wm. Scott and others members of the society.

T. A. L.

## TUXEDO HORTICULTURAL SOCIETY.

A team of assistants challenged a team of head gardeners of the Tuxedo Horticultural Society to a bowling match, the best of three games, which was played off on January 27 in the Firemen's Club, Tuxedo Park. The teams were well matched, and ran neck and neck through the first game, which resulted in a draw. To decide the game each player bowled an extra frame. and the head gardeners beat them by 20 pins. The second game there was better bowling. Some fine scores were put up, the game running very close till after the fifth frame, when the gardeners began to stretch away from them and finished 52 pins to the good. The teams were:

Head Gardeners-E. Barth, J. Tansey, D. | guests were present, and all united in say-S. Millar, S. Hilmers, C. Sheppard, P. Cassidy, T. Wilson.

Assistant Gardeners Jas. Davidson, Wm. Muir, H. Watson, T. Eastham, Wm. Grantham, Alex. Roy, J. Kelly.

After the game the assistants again challenged the gardeners, which is to be played in the near future.

THOS. WILSON, Secretary.

#### NASSAU COUNTY HORTICULTURAL SOCIETY.

The ninth annual dinner of the Nassau Horticultural Society was held in the Ori ental Hotel, Glen Cove, Monday evening. January 25. Seventy-five members and

ing the dinner was the best ever. President Ernest Westlake delivered a short address of welcome, and then introduced J. Austin Shaw as toastmaster for the evening. Gentlemen responding to the toasts of the evening were Charles H. Totty, for the Society of American Florists; John W. Everett, National Association of Gardeners; R. I. Bowne and W. R. Kinnear, the village of Glen Cove; William Turner, Bernardsville (N. J.) Horticultural Society; William Duckham, Morris County (N. J.) Horticultural Society; E. W. Newbrand, W. Scott and J. N. Smith, Tarrytown Horticultural Society; J. Duthie and J. Robinson, Oyster Bay Horticultural Society.

JAMES GLADSTONE, Corresponding Secretary.



A well-kept lawn is "a thing of beauty and a joy forever." Good taste, joy of ownership, love of beauty and civic pride are all expressed by a handsome lawn, just as a scraggily, ill-kept lawn denotes an owner of careless habits.

#### SPECIFICATIONS IDEAL JUNIOR

3 H. P. motor (S. A. E. rating). National high-tension magneto. Travels 1 to 4 miles per hour. 25-inch cut. Cuts 5 acres per day at cost of 20 cts. (10 hours.) Climbs 40% grades. Cutting adjustment  $\frac{1}{2}$  inch to  $\overline{2}$ inches. Automatic sharpening device operated by motor furnished with each machine.

> For large estates, golf clubs and country clubs, we offer the Ideal 38-inch Combination Roller and Mower at \$400.

> Write for catalog illustrated with photographs of these machines in operation.

IDEAL POWER LAWN MOWER CO.

R. E. OLDS, CHARMAS

LANSING, MICH. 419 Kalamazoo Street

#### BOSTON MIDWINTER FLOWER SHOW.

The main exhibition halls of the Massachusetts Hortueultural Society were filled on February 6 and 7 on the occasion of the Boston Midwinter Flower Show. Pot plants were of splendid quality and competition was quite keen. Awards in some of these classes were as follows:

Six pots Freesias: 1st, George Page, gardener to Mrs. Frederick Ayer; 2d, H. Stewart, gardener to Miss Cornelia Warren; 3d, E. H. Wetterlow, gardener to Mrs. Lester Leland.

Six Begonia Gloire de Lorraine: 1st, William Thatcher, gardener to Mrs. J. L. Gardner; 2d, W. W. Edgar Co.; 3d, Alex, McKav gardener to E. A. Clark.

Eight Prumula Simensis: 1st and 2d, M. Sullivan, gardener to William Whitman; 3d, William Thatcher.

Eight Prumula Stellata: 1st, William Thatcher; 2d, Martin Sullivan.

Eight Prumula Obcomea: 1st and 2d, Martin Sullivan; 3d, William Thatcher.

Eight Prumula Malacoides: 1st, Martin Sullivan; 2d, A. J. Newell, gardener to Ε. S. Draper; 3d, William Thatcher.

Light Roman Hyacinths: 1st, William Thatcher; 2d, Martin Sullivan; 3d, Duncau Finlayson, gardener to Larz Anderson.

Six Polyanthus Narcissus: 1st, William Thatcher.

Six Calanthes: 1st, William Thatcher. Three Orchids other than Calanthes: 1st, Duncan Finlayson; 2d, J. T. Butterworth; 3d, William Thatcher.

Specimen Orchid: 1st, D. Finlayson; 2d, J. T. Butterworth; 3d, William Thatcher.

There was a magnificent display of carnations in the private gardeners' class. George Page took first and second and Alex. Mc-Kay third.

George Page had a beautiful group of Ericas and a grand specimen of Acacia. Walter Angus, gardener to A. Lyman, had a collection of Camellias: Martin Sullivan and H. Stewart had fine groups of hard wooded and other plants. William Martin. gardener to N. T. Kidder, had fine seedling Amaryllis; one carried fourteen flowers on three spikes to the bulb.

# MORRIS COUNTY GARDENERS' AND FLORISTS' CLUB.

The annual dinner of the Morris County Gardeners' and Florists' Society was held at Piper's Hotel, Morristown, N. J., on Tuesday evening, January 19. The dining hall and tables were beautifully decorated with plants and flowers. Many out-of-town friends of the society were on hand. A fine musical programme was presented, and from the time the members and their friends sat down at the tables until nearly midnight, when "Auld Lang Syne" was sung, good fellowship prevailed.

Robert Craig, of Philadelphia, was introduced as toastmaster by President Percy Witney, and he performed his duties to perfection. Telegrams were received from John W. Everitt, Glen Cove, N. Y., president of the National Association of Gardeners, and from George C. Watson, Philadelphia, expressing their regrets at not being present. The following toasts were responded to: "The Morris County Gardeners' and Florists' Society," Wm. Duckham; "The Society of American Florists," Charles H. Totty; "The American Sweet Pea Society," Harry A. Bunyard; "The New York Spring Flower Show," Richard G. Holloman; "Our Good Fellows," J. Austin Shaw; "The Horticultural Press," J. Harrison Dick; "The National Association of Gardeners," M. C. Ebel; "Ornamental Horticulture," Arthur Herrington; "The Ladies," Joseph A. Manda.

Burpee's Seeds Grow

THE truth of this famous slogan is proved by thousands of pleased and permanent customers. The Eurpee Idea of Quality First—"to give rather than to get all that is possible"—combined with efficient service, has built the world's greatest mail order seed business. We deliver seeds free by parcel post, and have not advanced prices because of the war. Write today for Burpee's Annual, the "Leading American Seed Catalog" for 1915. It is mailed free.

# W. ATLEE BURPEE & CO.,

Burpee Buildings

Philadelphia.

# SOUTHAMPTON HORTICULTURAL SOCIETY.

The above society held its regular meeting in the Odd Fellows Hall, Southampton, on February 4, when there was a good attendance of members, and with President McLoughlin in the chair.

The visitor of the evening was Mr. Andrew Kennedy, who addressed the members at some length on interesting topics, one of the chief items of which was a discussion of the proposed scheme of the mutual co-operating between horticultural societies. The members decided in its favor, and promised their support.

M. J. Guilfoyle, the local florist, was awarded an award of merit for two extra fine vases of carnations. An essay was read by S. R. Candler on "Schizanthus and Their Culture"; then there was a good discussion.

It was decided to hold the annual flower show in Southampton on July 28 and 29, 1915; list of prizes to be issued later.

Two new members were elected as active members of the society -Mr. H. Elsworth and Mr. Charles Fulton.

The next meeting of the society will be held on February 18.

S. R. CANDLER, Corresponding Secretary.

#### PITTSBURGH FLORISTS' AND GARDEN-ERS' CLUB.

The club meeting of February 2 was held at the Fort Pitt Hotel with a large attendance of members.

The election of officers for the year 1915 resulted in the retention without change of the officers for 1914, viz.:

President, Neil McCallum; vice-president, E. C. Reineman; treasurer, T. P. Langhans; secretary, H. P. Joslin; assistant secretary, W. A. Clarke: Executive Committee: P. S. Randolph; C. H. Sample, A. Frishkorn. There was a remarkably fine exhibit of roses from the E. G. Hill Company of Richmond, Ind., and of blooming begonias in pots from A. J. Peterson & Sons, Cincinnati, together with a number of exhibits from home growers.

ANNUAL

1915

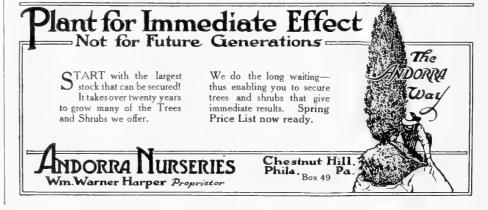
Mr. Emil Kraft, of Pittsburgh, gave a talk on radium, and especially the influence of radio-active earth in plant growth and crop production. First describing the discovery of radium, he showed by lantern slides the ore-fields in Colorado and the reduction of the ore and the extraction of radium, 400 tons of radium ore being required to produce on an average 151/2 grains of radium. After the radium is extracted the residue is left in a finely powdered condition, and it is the application of this to the soil and the results therefrom that florists are principally interested. The powdered radium ore was applied to the land in the proportions of 25, 50, 100 and 200 pounds per acre. The result of the experiments showed that an excess of radium would decrease the crop. For example, on turnips the 50-pound plat showed better results than those with either larger or smaller amounts of the powdered The effect on lawn grass was specially marked in increased yield. On the other hand, some experiments in the South have shown very little results.

It is evident that the experimentation with radio-active earth is only in its infancy, but enough has been demonstrated to attract universal interest, and to cause the liveliest attention from all interested in horticulture.

H. P. JOSLIN, Secretary.

#### TUXEDO HORTICULTURAL SOCIETY.

The usual monthly meeting of the Tuxedo Horticultural Society was held on February 3. President Frederick Rake in the chair. There was a good attendance of members present. The society has arranged



# entropalarmonamenta de la calenda de la composição de la JOSEPH MANDA

Orchid Specialist

West Orange - New Jersey

Something to all community of the control of the co

to have its annual ladies' evening in April and its ball in May. Two new members were elected to membership, Neil MacMillan and A. Bissett.

The lecture for the evening was given by Mr. David McIntosh on "Ferns," which was very interesting, and was freely discussed among the members present. We have arranged to have a lecture at each monthly meeting during the year. The series of lectures given at our meetings last year were well attended and brought out some fine discussion.

The president appointed Messrs, J. Davidson and Tansey to look over an exhibit of a specimen plant of Chorozoma Cordatum Splendins by Thomas Wilson, which they awarded a certificate of culture.

The society will hold its Rose and Carnation night on March 3, when we expect quite a few exhibits from the commercial growers of some of their novelties, also classes for 6 and 12 carnations and the same number of roses and any other pot plants and cut flowers. A letter was read from Mr. C. H. Totty offering the Wells' gold, silver and bronze medals for competition at our fall show for the new mum, Mrs. G. G. Mason, which has been named after one of the residents of Tuxedo Park

THOS. WILSON, Secretary.

#### THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

A large percentage of the entire member ship was represented at the regular monthly meeting of this society, held in Greenwich, Conn., Friday evening, February 12. The membership list was increased by the admission of some new members, and several names were proposed and placed on file

It was voted to hold the annual fall ex hibition, dates and location to be announced later. Mr. John Canning offers 820 m gold as a sweepstakes prize for the best specimen bush plant in the chrysanthemum class. The A. N. Pierson Company of Cromwell Conn., offers eash prizes for two classes of large flowered mums, and in two classes of pompon mums 1915 novelties.

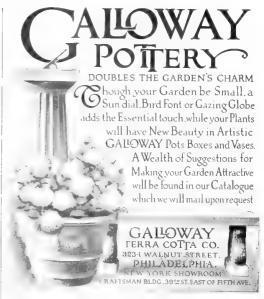
number of visitors were present, including Messrs, Arthur Herrington, Charles H. Totty, W. J. Collins, A. L. Ricards, M. C. Ebel and Henry Kelly.

Mr. Herrington, who has been appointed manager of the National Show to be held in Yew York in March, spoke at length regarding the plans and preparations being made to make the exhibition of 1915 a success that will eclipse all former efforts in this direction. These exhibitions afford the gardener plenty of opportunity to display the results of his skill and also gain the respect and confidence of his employer, whose co-operation is essential and necessary. The other visitors each in turn spoke briefly. complimenting the members on the wonderful progress made by the society in such a few years, and on the unusual attendance and quality of our membership as attested by the very fine monthly exhibits that are in evidence at every meeting.

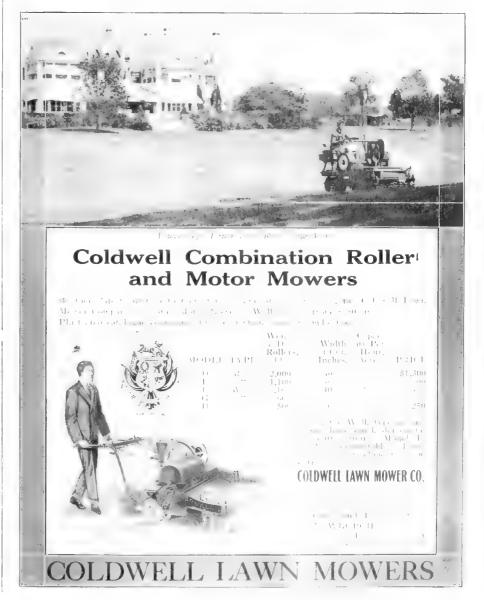
The lecturer for the evening, Mr. Henry Kelly, held the attention of all present with an excellent paper describing at length the varieties of conifers that are suitable and thrive in Fairfield County, Conn., and Westthrive in Farmeid County, Conn., and West-chester County, N. Y. The lecturer also de-scribed minutely the diseases and insect posts that attack overgreens. A rising rote

for thanks was accorded to Mr. Kelly for his i instructive and interesting paper.

Mr. Thomas Ryan, of Portchester, N. Y. read a paper dealing with the culture of sweet peas, from the propagating hed to the exhibition table, which was rendered in a very comprehensive manner, and was replete with useful and helpful suggestions. A very with useful and helpful suggestions. A very sturdy young plant was exhibited by Mr. Ryan, illustrating his method of training and disbudding. A rising vote of thanks was tendered to Mr. Ryan for his valuable essay. A wonderfully fine display was on the exhibition tables, a feature of which was the competition for the John Canning prizes for the best vase of roses. James Stuart gained the first prize with a good vase of Killarney Brilliant. The second prize went to Robert Grunnert for a vase of the same variety. The judges made the following awards in the non-competitive section: Cultural certificate to Robert Allen for a grand vase of mignonette, Farquhar's "Universal." A beautiful vase of carnations from W. H. Fisher received honorable mention, as did a fine vase of carnations from Robert Grunnert. A. Wynne was highly commended for display of well-grown plants of Primula Malacoides, and M. Alba also a vote of thanks for an excellent vase of stocks "Beauty of Nice." James Linane was very highly commended for a fine display of wellgrown cyclamen plants. Carl Hankenson thanks. A basket of minature pink hya-received a vote of thank for a good breigh einths "Nimrod" and hip of the valley ar



of violets. A display of cinerarias from Robert Allen was accorded honorable mention. Vase of orchid flowering sweet peas from Patrick Fairfield received a vote of



# Radium Makes Things Grow

Its effect upon vegetation is very marked, producing more rapid growth and luxuriant appearance, as well as improving quality and production. Radium Brand Fertilizer (R.A.F.) is a scientific and thoroughly tested combination of Radium Element with fertilizer. Try a can and see what gratifying results follow its use. One pound will fertilize 50 sq. ft. of surface.



Before being offered to the public, it has been successfully tested on 130 acre farm under direction of famous Botanists and Horticulturists; also by Phipps' Conservatories, Pittsburgh, Pa., and manyothers in various parts of the country. These results told in our interesting free booklet, "Radium Makes Things Grow," illustrated with photographs of plant life grown with and without Radium Brand Fertilizer (R.A.F.). Write today for this booklet, and also order a sample can by mail.

#### Sample Can, Prepaid, 25c

Radium Brand Fertilizer is a complete and highly efficient plant food, put up in convenient and attractive packages and priced to meet a demand from you who love to grow things, in your home, garden, lawn or greenhouse

Radium Brand Fertilizer (R.A.F.) is so'd by florists, grocers, druggists and reed and hardware dealers. If your dealer cannot supply you send us his name and 25c for can (12 oz. net R.A.F.), prepaid. Also sold as follows, prepaid, where dealers cannot supply you.

2 lb. can, 50c 10 lb. can, \$1.75 5 lb. can, \$1.03 25 lb. can, \$3.75

In writing always be sure to give us your dealr's name so we can arrange for your future supply

Radium Fertilizer Company,



Chrysanthemum plants grown from same cutting in same soil, in Phipps Conservatory, Pittsburgh, Pa., the one at left with Radium Brand Fertilizer (R.A.F.), at right with ordinary commercial fertilizer.

208 Vanadium Building PITTSBURGH, PA,

ranged by P. W. Popp received honorable mention. The same exhibitor received a vote of thanks for specimen plant Erica Codono ides in the commercial section. Charles II. Totty received honorable mention for each of four vases of new roses. P. W. POPP.

# CONNECTICUT HORTICULTURAL SOCIETY.

This society held a record-breaking meeting on Friday evening, February 12, in the County building Hartford, President Mason presiding. The secretary read a letter from Mr. Harry Jones, secretary of the Nassau County Horticultural Society, with regard to a member who changes his place of residence having the privilege of full membership in some other society without being formally elected as a new member; that is, simply transferring him from one society to another with full privileges. This matter was left to the secretary for attention. President Mason announced that one of the large seed houses would donate a silver cup as a special premium at the fall dahlia show.

According to the schedule, this was cy clamen and primrose night, and Mr. Frank Roulier exhibited eight pots of cyclamen and six pots of primula malacoides, and Mr. Carl Peterson exhibited a lemon as large as grape ruit. O. F. Gritzmacher, Nathaniel Slocombe, and George B. Baker were ap pointed judges by President Mason, and they awarded the cyclamen and primula malacoides a first-class certificate, and the lemon a cultural certificate. Mr. Huss, the former president, gave a most interesting and edifying talk on how to protect the cyclamen from the mite, and also as to the time of sowing the seed and transplanting, and cultivation to maturity. President Mason suggested that the members make better use of the question box, as that was the only way amateurs could acquire knowledge covering the science of horticulture. Five new members were added to the society roster. There were thirty members present, and a lively discussion took place relative to a flower show to be held some time in May or early June.

ALFRED DIXON, Secretary. Wethersfield, Conn., February 15, 1915.

# EXHIBITION OF THE AMERICAN ROSE SOCIETY.

The exhibition of the American Rose Society for March 18 to 21, inclusive, is being taken well in hand by the Boston horticultural interests, with the determination to provide an exhibition of the first class.

The American Rose Society has already received twenty (20) special prizes besides the

regulars. A special prize, a little different from anything that has been offered beore, is made by the Glenfrew farm, Sewickley, Pa., for the best dozen roses grown by an amateur. There may be two varieties. Amateur gardeners nor commercial rose growers may not compete, it being solely for amateurs a silver cup, valued at \$20. This prize is given to encourage lovers of roses as the English Rose Society has been doing for years past.

Free tickets to the show will be issued to all members.

BENJAMIN HAMMOND. Beacon, N. Y., February 16, 1915.

# NASSAU COUNTY HORTICULTURAL SOCIETY

The regular monthly meeting of the Nassau County Horticultural Society was held in Pembroke Hall, Glen Cove, Wednesday, February 10. President Ernest Westlake in the chair.

W. H. Reynolds was elected to active membership, and one petition for active membership was received.

The judges for the monthly exhibits were Messrs, J. F. Johnstone, W. Robertson and G. Gilder, and their awards as follows:

Competition 12 sprays of Freesia: 1st, James McDonald.

One pot of stock; 1st, James McDonald. One pot of Primula Malacoides: 1st, Frank Honeyman.

For exhibition plant of Primula Malacoides improved shown by James Duthie very highly commended.

Pot of Freesia shown by Harry Jones, thanks of the society.

President Westlake announced he would offer a fountain pen at our next meeting for the best vase of 25 carnations mixed. Other exhibits will be 12 white carnations, 12 pink carnations and 12 any other color.

JAMES GLADSTONE,

Corresponding Secretary.





# BON

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55 5 lb. package making 150 gallons,

exp. extra 1.80 25 lb. package making 750 gallons, exp. extra 6.25

50 lb. package making 1,500 gallons, exp. extra 12.50
100 lb package making 3,000 gallons,
exp. extra 20.00

Barrels from 250 to 300 lbs., 18c. per lb.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon. 1½ gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

# BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.

# Tree Owners and Tree Lovers

Will find much to interest and instruct

# **NEW ILLUSTRATED MAGAZINE**

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on leceipt of 2 cent stamp to cover postage. Published quarterly by

# THE FROST & BARTLETT COMPANY

26 Cortlandt St.

(Suite 212)

**NEW YORK** 

of the control of the

# from Big Feeding Barns Adulteration - No Weed Seed



THIS mark stands for the cleanest Sheep Manure in America —no pig manure, no adulteration— nothing but Sheep Manure, dried and pulverized, and all weed seeds killed. We guarantee it absolutely clean. Shipped in 100 lb. bags. Write for prices, delivered.

NATURAL GUANO CO., 805 River St., Aurora, Ill.

# For Everything You Grow **Use Alphano Humus**

\*

FOR LAWNS, SHRUBS, FLOWERS, VEGETABLES

It's Nature's Soil Builder

ITHOUT humus, no soil can be fertile." Such is the statement of Government soil experts. Alphano Humus is a concentrated humus and plant food combined. It will give an immediate and long enduring fertility to any and all soils, no matter if sterile sea sand or unproductive blue clay. It will bind the one together and loosen the other up.

It will induce thick, vigorous lawns that withstand dry weather, when others are burned and yellow. It will stimulate immediate root action in shrubs and trees, resulting in a sturdy, free top growth.

Being odorless, highly sanitary and in

powdered form; making it agreeable to mix with the soil, it gives to flower gardening an added pleasure and makes possible the height of plant and bloom development.

Being rich in plant foods, both those immediately available and the more slowly liberated ones, it immediately stimulates vegetable growth and keeps them growing vigorously the seasons through. In short, it is nature's balanced

Send for the Humus Book for full facts and directions for use. Let us know the area of ground you wish to enrich and we will gladly advise how much Alphano Humus you need.

THIS lawn was treated with animal manner The terrace was treated with Alphano Humus. Note the difference in color and let ath of gress three days

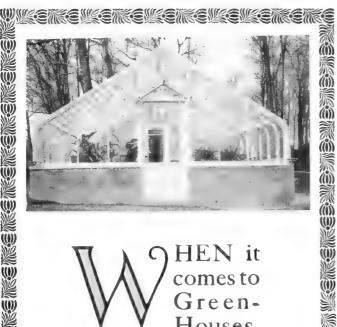
IF at mist y i to may ct.
Humins to bu or Alpharo op the e soil of a high n --, then effective way



mowing

17-G BATTERY PLACE

NEW YORK



HEN it comes to Green-Houses, come to

# Hitchings and

General Offices and Factory-ELIZABETH, N. J.

e kekekekekekekeke

New York 1170 Broadway

⊊Gamminna,ampikaa esamminnais k. − 1 radiolikis 3 t kis. − 1 radiolikis

Philadelphia 40 S. 15th St

源

TERE we show a Metropolitan curved eave greenhouse and service building, designed and completely erected by us for Horace De Lisser, Esq., at his estate at Great Neck, Long Island.

This is one of the numerous little layouts that are steadily gaining a reputation for Metropolitan curved eave houses. They have that distinctive "touch of class" combined with strength and durability.

We plan and build houses everywhere. Let us do yours, Send for prices and specifications.



# Metropolitan Material Company

PATENTID AND HINDING

Iron Frame, Curved Eave and Semi-Iron Greenhouses Greenhouse Designers. Heating Engineers. Hotbed Sash, Glass

1398-1408 Metropolitan Ave., Brooklyn, New York



# The Recognized Standard Insecticide

For green, black, white fly, red spider, thrips, mealy bug and soft scale

# WHERE WE STAND

New York

Iplane Manufacturing Company. Madison, N. J.

Gentlemen

I am returning the enclosed bill as you have not or 25%, which the other manufacturers of agricul-tural chemicals allow me. As I am acting as a purchasing agent for a great many places in this actinity and as a large number of orders pass through my office every year, it is only just that I should be allowed the usual agency commission. Will you kindly let me hear from you in this matter? Yours truly,

Pear Sir.

Your favor of the 28th ult. at hand, in which you ask us to allow you a discount on the enclosed bill. It c have only two prices—one a wholesale or dealers price, and the other a retail price. The wholesale prices are quoted and allowed only to dealers who actually handle our products and carry them in stock

It has always been our policy not to allow any discount to landscape gardeners or to purchasing agents of private estates, as we understand it is the custom of the estate owners to pay these buyers for

the services they render.

We are very much opposed to the practice of some of these buying agents who return the discounts, when they are allowed them, to their clients. This has created a false impression and one that we believe has been decidedly detrimental to the interest of horticulture and no doubt in some instances has served to discredit the loyalty of some of our best gardeners to their employers. A gardener would not be able to obtain these discounts from us and we containly exold not be instifud in growing them to certainly would not be justified in granting them to any other representative of the estate owners.

Yours truly,

Aphine Vanufacturing Company.

M. C. Ebel, Treasurer.

FUNGINE For mildew, rust and other blights. It is perfectly safe to apply to fruits and vegetables, as it is non-poisonous.

VERMINE For eel, cut and wire worms working in the soil. It can be applied to all vegetation.

NIKOTIANA A 12' Nicotine solution properly diluted for vaporizing, fumigating and spraying.

SCALINE For San Jose, Oyster Shell and all scale on trees and hardy stock.

If you cannot obtain our products from your local dealer, send us your order with remittance, and we will ship immediately through our nearest agent.

# Aphine Manufacturing Co.

Manufacturers of Agricultural Chemicals MADISON, N. J.

conditions and more distributions and con-



# SOMETHING DIFFERENT

Step of the state 
#### SALES OFFICES

New Yerk, 42d St. Blig. The neet Blig. Chicago. Rochester, Rookery Bldg. Philadelphia. Geveland. Swetland Bldg. Swetland Bldg.

Toront - Royal Bank Bldt



FACTORIES

fryington, N Y

# For Lasting Strength and

Arte to substantial und practical protection. The tishing touch to beautiful premises, or park. This in harmout the other nature is



# CYCLONE-WAUKEGAN ORNAMENTAL FENCE

IS ORIGINAL AND EXCLUSIVE IN DESIGN

Makes a lasting improvement, because substantially built of heavily galvanized wire, closely and firmly woven. Permits an unobstructed view of the grounds. Easy to erect on wooden or iron posts—adjusts itself to uneven ground;

stands firm and lasts many years without repairs.

Entrance Arches for private grounds or parks, with a 100 % and in heights and designs, to suit your wishes.

We manufacture also Flower-bed and Lawn Beide, 1975. Tennis Court Back stops, Tree Guards, etc.

Let our Engineering Department help you solve your fencing problems. Consultation Free

Handsomely Illustrated Catalog giving designs and prices sent on request

Cyclone Fence Co. 131 Waukegan, Ill.

CO-OPERATE

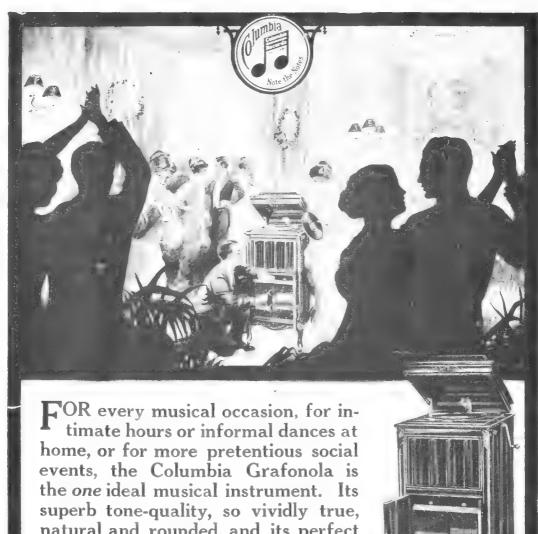
with

LANDSCAPE

GARDENERS and

SUPERINTENDENTS

OF PARKS & PRIVATE GROUNDS



events, the Columbia Grafonola is the one ideal musical instrument. Its superb tone-quality, so vividly true, natural and rounded, and its perfect and exclusive control of tone-volume, are two distinguishing features that have established the Columbia as the finest musical achievement.

There are \$500 Color 1. It dides. Be size your dealer shows you a Columbia oradono. You can be creat is a Columbia 19 footing for the exclusive Columbia to footing for the exclusive Columbia tone-sontrol lieves which have taken the place of the cld little-modified or idea IMPORTANT NOTICE: All Columbia Records can be played on your discitalking machine if any standard make.



# Columbia

GRAPHOPHONE COMPANY, - Box A 209, Woolworth Building, New York

Ioronto: 365-367 Sorauron Ave Dealers wanted where we are not actively represented. Write for particulars. Prices in Canada Plus Duty

# 

OF ANDERED



# Burnett Bros.' Grass Seed Mixtures

We make a specialty of Grass Seed Mixtures and supply many of the largest estates in the country.



Write for our Illustrated Booklet HOW TO MAKE-HOW TO KEEP A PERFECT LAWN.

⊡

Burnett's Special Lawn Grass Mixture

The above maxime is made from our own formula, and composed of grasses specially adapted for the purpose of producing turf which retains its rich green color and velvety appearance throughout the entire Summer and Fall. In making up this high grade mixture we are careful to use only the very finest quality of all the most desirable dwarf evergreen, recleaned grasses, free from chaff and weeds, which thrive well on any soil, thus ensuring a beautiful and permanent lawn.

To obtain good results Lawn Grass Seed should be sown as soon as the ground can be prepared in early Spring. It may also be sown in the Fall with good results. One quart will sow 15 x 20 feet (300 square feet); I bushel, 100 x 108 feet (10.800 square feet), 4 to 5 bushels to the acre.

Price: Qt. 25c., pk. \$1.75, bushel (20 lbs.) \$6.00.

# Burnett's "Central Park" Lawn Grass Qt. 20c., pk. \$1.50 bush. (20 lbs.) \$5.00

Burnett's "Shady Place" Qt. 30c., Pk. \$2.00 Lawn Grass

Burnett's "Bank and Terrace" Qt. 30c. Pk. \$1.75 Lawn Grass

Bush. (20 lbs.) \$6.50

Grasses for Golf Courses, Etc.

We have made a specialty of Fine Grass Seed Mixtures for many years, suitable for Putting Greens and Fair Greens, and are direct importers of the various European grasses and handle largely the domestic varieties necessary for the formation of correct formulas to cope successfully with the many different conditions of soil, location and climate.

Many clubs have experimented with their greens until they have been successful in the combination of a mixture that gives perfect satisfaction in their particular location. In such instances we will be glad to offer the necessary grasses separate or make a mixture to the required formula.

BURNETT'S FAIR GREEN MIXTURE BURNETT'S PUTTING GREEN MIXTURE 

NOTE: - If you did not receive our 1915 Spring Catalogue, which contains a complete list of Lawn Mowers and Fertilizers, send your address for same.

# BURNETT BROTHERS, Seedsmen

98 CHAMBERS STREET, NEW YORK

Telephone, Barclay 6138

error i . Perdenduku kundindikan 🌠



This Collection, exhibited at the Horticultural Show, Cardin, Wales, 1914, took the Gold Medal.

# Grown from the "Seeds with a Pedigree"

In the exhibition of a prize-winning collection of vegetables or flowers, credit is shared alike by the gardener and the seeds he uses. In Great Britain, it is a notable thing that a large proportion of all Horticultural Show Prizes are taken by products grown from Carter's Seeds. This is due not only to the virtue of the seeds, but to the fact that most skilful and experienced gardeners use them. These gardeners know that Carter's Seeds are dependable. They know that long pedigree and careful testing remove all uncer-

tainty so far as possible and insure healthy, well-selected seeds.

Since their introduction in America, Carter's Seeds have made an equally notable record. In many private and public gardens they have achieved displays never before seen in this country.

If you have not received your copy of the 1915 Carter Catalog, American Edition, by all means write for it at once. Mailed free on request.

# CARTER'S TESTED SEEDS, INC.

111 Chamber of Commerce Bldg. Boston, Mass.

133 King St. East. Foronto.

Branch of Jas. Carter & Co., Raynes Park London, England

Barters Tested Seeds

# Quality and Reputation

A LL of the seeds, plants and bulbs that you purchase are bought on the reputation of the seller. Even the most thoroughly trained seedsman or horticulturist is unable to give a satisfactory opinion without exhaustive tests, and with this fact in mind it is always desirable to first investigate the reputation of your seedsman. The business of Peter Henderson & Co. was established in 1847 and has been built to its present proportions by the most careful attention to quality.

The third generation of Hendersons are in charge today and there is something more than just a plain business relationship existing between themselves, their employees and their customers. When you buy Henderson's seeds you buy 69 years of experience; you buy the prestige and reputation of years of successful seed raising and selling; you buy seeds that have behind them the sentiment brought out by many years of careful, conscientious attention to our customers and their wants. The very smallest part of the cost is represented by the

seeds and it is by far the most important. Try the Henderson Way this year and see if there isn't a difference.

We should be glad to send our 204-page catalogue without charge to anyone mentioning "The Gardeners' Chronicle."

# Peter Henderson & Company

35-37 Cortlandt St., New York, N. Y.

scientious atternation of the very small state of the

# 

# Plant Our Summer Orchids Plentifully

UR Summer Orchids are the productions of Autoine Wintzer, the famed hybridizing Wizard of the East.

Following the work of several French and Italian enthusiasts, he developed the little red blooms of the Indian Shot, or South American Canna, into a marvelous collection of large Orchid and Lily shaped blooms, that compete in colors with the rainbow.

All the Summer long they bloom. For color spots among border plantings or general garden schemes, they are most effective.

Massed around the foundation or in groups on your grounds, they give rich, abundant foliage effects, mingled with their charming bloom colorings.





For 15 years Mr. Wintzer labored, developing his pet white Summer Orchid, called "Blanche Wintzer." Think of the patience. Put that's the kind he is."

In addition to the wonderful size and color development of the flowers, Mr. Wintzer has also induced a dozen or more of them to put on garbs of bronze foliage instead of green, adding still further color and group combinations.

Some he has persuaded to grow but 18 inches high. Others 3 reet. While several hold up their regal bloom heads a full 7 feet.

With such a range of sizes, the effects possible are almost limitless. Below is a collection of 10 each, in all three sizes. Mr. Wintzer selected them from the list of his 87 varieties. He says they are the very cream of all his favorites. Make your selections and send your order early, because like favorites in general, these are much in demand and the supply is somewhat restricted.

# Send for the Canna Book

DWARFS
PINKS. Per 100
Martha Washington \$3.75
Hungaria 7.50
Loveliness 7.50
VARIEGATED.
Niagara \$5.25
Panama 37.50
Queen Charlotte 3.75
YELLOW,
Buttercup \$7.50
Dr. Nansen
RED.
Philadelphia
Triumph 3.75
** * *** **** TO THE PROPERTY OF THE PROPERTY

MEDIUM	
PINKS. Per 100	
Mrs. Alfred F. Conard\$15.00	
Wabash 15.00	
Venus 4.50	
VARIEGATED.	
Elizabeth Hoss \$3.00	ŕ
Maid of Orleans 15.00	
YELLOW.	
Brilliant \$5.25	
California 4.50	í
RED.	
Beacon \$6.00	
Duke of Marlboro 3.00	
Patrie 3.00	,

IALL	
PINKS.	Per 100
Evolution	\$3.00
West Grove	3.00
VARIEGATED.	
Compte de Bouchard	\$3.00
Gladiator	
YELLOW.	
Richard Wallace	. \$7.50
Kate F. Deemer	15.00
Wyoming	3,00
RED.	
Meteor	\$30.00
Pillar of Fire	3.75
Uncle Sam	3.75

# SOME ROSE SPECIALS

Besides growing Summer Orchids, we are rose specialists. So much so, in fact, that we have over 400 varieties to choose from. Each year, however, brings its specially choice ones, which we take more than usual pleasure in recommending to our friends. Here are a few. You can't go wrong on a single one. The plants are fine, well rooted ones, in splendid condition. Include some along with your Summer Orchid order. Our complete catalog of roses you are welcome to.

AMERICAN PILLAR, E	Extra, 2	year		. \$18.00
DOROTHY PERKINS,	Pink, 2	year		. 15.00
DOROTHY PERKINS,	White, 2	year		, 15.00
DOROTHY PERKINS (	(Excelsa)	Red, 2 3	year	. 18.00
EVANGELINE, 3 year	plants .			. 15.00
GARDENIA, a few (20	00)			. 18.00
And many Polyanthas.				

# SOME SHRUB BARGAINS

And while you are buying Roses and Summer Orchids, you might just as well succumb to the temptation of adding some of these fine shrubs. With Summer Orchids, Roses and Shrubs, you can make some of your dreams come true.

Per 100 Per 1000	
BARBERRY, Thunbergii. 2 years, 12 to 18 inch \$7.50 \$67.50	
BARBERRY, Thunbergii (from seedlings), 2 yr., 12 to 18 inch	
BARBERRY, Thunbergii (from seedlings), 18 to 24 inch 11.25 105.00	
SPIREA PRUNIFOLIA, 2 years, 18 to 24 inch 15.00	
SPIREA PRUNIFOLIA, 3 years, 3 to 4 feet 18.00	
HONEYSUCKLE, golden. 3 years, 3 to 4 feet., 12.00	
And other such 'finds !!	

# THE CONARD & JONES CO.

Swas-teeka Brand Cannas

West Grove, Pa.

# THINKE ET SERVETHINGS ELSE, FREWEITHER BESTELLER AUTHINITY.

# We Desire to Call Attention to

# A Few Specialties

which we believe we have in larger supply and of better quality than can generally be obtained. All of our EVERGREENS are transplanted frequently, root pruned, trimmed frequently, and will lift with fine balls of earth. Our stock of large specimen

# RHODODENDRONS

is unequaled. We grow only the very hardiest varieties—those that have been tested and that are thoroughly dependable. We believe we have the largest stock of large specimen rhododendrons to be found anywhere in this country. Our plants have been grown on our own grounds for a dozen years or more, and are thoroughly acclimatized, so that they are preferable to any imported plants. While we can supply smaller sized plants, we are particularly strong on plants ranging in height from three to six feet.

We call particular attention, also, to the following

# **EVERGREENS**

Very large **HEMLOCKS** from six to twelve feet in height,—exceptionally fine compact sheared specimens.

JUNIPERUS VIRGINIANA GLAUCA, fine pyramidal specimens four to eight feet in height. JUNIPERUS PFITZERIANA, large stock of fine specimens from two to six feet in height.

THUYA STANDISHI, or SITKA ARBOR VITAE, the hardiest of all arbor vitae. Fine specimens five to nine feet in height.

**COLORADO BLUE SPRUCE.** Our stock of this in large specimen trees is unequaled. We can supply trees in any size from three to twelve feet in height,—absolutely perfect specimens, all of the true Koster type. Very low prices for carload lots.

**TAXUS CUSPIDATA.** We have an unequaled stock of this rare and valuable evergreen, which we can supply from three to four feet in height,—broad, fine, perfect specimens.

# **DOGWOODS**

We have an unusually fine stock of very large specimens of **White-flowered Dogwoods**,—one of the most beautiful of our American trees,—plants ranging in height from six to twelve feet; also a fine lot of **Red-flowered Dogwoods** five to six feet in height. These large red-flowered dogwoods are very scarce.

# JAPANESE MAPLES

An unusually fine lot of specimen plants of ATROPURPUREA SANGUINEA and DISSECTUM, well-grown specimens from four to six feet in height.

# **HYDRANGEAS**

Grown in large tubs and half-barrels for summer-blooming. Otaksa and the new French varieties.

# **ROSES**

of which we make a specialty. We will be glad to quote prices on all the new and standard varieties,—Prince E. C. d'Arenberg, Francis Scott Key, Ophelia, Killarney Queen, Killarney Brilliant, White Killarney, etc., etc.

# F. R. PIERSON COMPANY

TARRYTOWN-ON-HUDSON, N. Y.

Telephone: Tarrytown 48

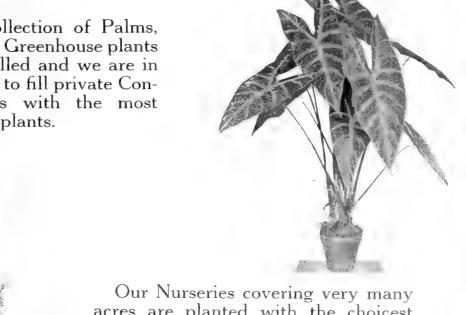
# JULIUS ROEHRS COMPANY



# Nurserymen and Florists RUTHERFORD, N. J.

In our immense Range of Orchid houses you may select not only the ordinary Varieties but the choicest and rarest Hybrids and Species.

Our collection of Palms. Stove and Greenhouse plants is unequalled and we are in a position to fill private Conservatories with the most beautiful plants.



acres are planted with the choicest Evergreens, Trees and Shrubs, and our collection of Hardy Perennial plants is most complete.

Our Landscape Department is in a position to plan and plant grounds and gardens and will be pleased to submit specified estimates. Consultation solicited

Everything for the Garden and Conservatory Catalog on Request Visitors Invited



# "MULTUM IN PARVO"



"LILLIAN DOTY," MY FINEST HARDY POMPON

# **CHRYSANTHEMUMS**

I catalogue over 400 sorts and have them for every purpose. Being the sole Agent for Wells of England, Nonin of France and Pockett of Australia, enables me to give my clients the finest sorts in the world to pick from. Japanese, Singles, Early Flowering, Pompon and all other types.

# **ROSES**

Belfast, Ireland, I have his 1915 Novelty Set to offer, as follows:

> **GORGEOUS** MRS. GEO. GORDON MRS. HUGH DICKSON

As agent for Hugh Dickson, Ltd., All the American Introductions for the Greenhouse and Outdoors.

"MRS. F. F. THOMPSON"

"WHITE SHAWYER"

"SEPTEMBER MORN"

"HOOSIER BEAUTY"

"OPHELIA," etc., etc.

## CARNATIONS

New varieties ready from pots: ALICE-PINK SENSATION-GOOD CHEER and also the Standard sorts

GET MY CATALOGUE AND BE UP TO DATE!

# CHARLES H. TOTTY

MADISON, N. J.

4.00 5.00

6.00

10.00 11.50 12.50

Correspondence Invited

# **BOBBINK & ATKINS**

"World's Choicest Nursery and Greenhouse Products"

### Grown in America

S EVERAL years of constant thought and effort places us in a position to fill orders for all kinds of Nursery and Greenhouse Products for Outdoor Planting and Indoor Decorations, INDE-PENDENT OF EUROPEAN IMPORTATIONS. Among the many attractions growing in our 300 acres of highly cultivated Nursery are large quantities of the following specialties:

ROSE PLANT, Hybrid Tea, Perpetual and other varieties

EVERGREENS, CONIFERS and PINES. Many acres of our Nursery are planted with them.

HARDY OLD-FASHIONED PEREN-NIAL PLANTS.

SHADE TREES, FLOWERING SHRUBS and JAPANESE MAPLES.

DWARF, TRAINED and ORDINARY FRUIT TREES, STRAWBERRY PLANTS and other small fruits.

BAY-TREES and large-leaved decorative plants.

DAHLIAS, and other bulbs and roots.

RHODODENDRONS, English, Hardy Hybrids, Catawbiense and Maximum

HARDY VINES and CLIMBERS.

JAPANESE FLOWERING CHERRY and CRAB-APPLE TREES.

PEONIES, German and Japanese IRIS.

BOXWOOD and other large-leaved evergreens.

CALIFORNIA PRIVET, BERBERIS and other hedge plants

PLANT TUBS, WINDOW-BOXES. ENGLISH GARDEN FURNITURE and RUSTIC WORK.

10-12 in. diam. inside...

4.6

... \$5.50 ... 6.50 ... 7.50

11.50

13.00

16.50

17.50 18.00 19.00

20.00

OUR NEW HYBRID GIANT FLOWERING MARSHMALLOW WILL BLOOM EVERYWHERE

The above are described and priced in our Illustrated General Catalog No. 45, mailed upon request. When requesting catalog please state in what you are interested. Visitors are made welcome to inspect our products, which is very important before placing order.

No. 1. No. 2.

\$1.00

4.50

5.00

3.00

17-19 19-20 "

25-26 ...

# Bobbink & Atkins Heart Cypress Tubs

We take pleasure in directing the attention of our patrons to our Plant Tub Department. This has now been in existence for several years during which time we have manufactured and sold many thousands. B. & A. Square Tubs Round Tubs.

12-13 ··· 14-15 ··· 16-17 ···

10-11 in. diam. irside

In addition to these we make many other designs and if customers will submit to us sketch showing styles and dimensions wanted we shall be pleased to quote prices.

WINDOW BOXES AND ENGLISH GARDEN FURNITURE. We manufacture Window Boxes, and Garden Furniture to order. We shall be pleased to give prices on sketches submitted showing dimensions of Window Boxes and Garden Furniture, stating color and style.

RUSTIC ARTISTIC WORK. Houses, Pergolas, Tables, Chairs, Settees, Circular Seats for trees, Tennis-Court Shelters, Grape and Rose Arbors, Bridges, Fences, Gates, Terrace Steps, Rustic Wells and Bird-Houses. We

work represents the highest perfection of woodworker's art. timates furnished for Special Work.



Ask for our Illustrated General Catalog

A fter attending The New York Spring Flower Show and viewing the specimen plants on exhibition there, pay us a visit at our new Mammoth Show Rooms which have just been opened for our Spring Season. There you will be able to purchase at auction, at your own prices, such plants as you have seen at the Flower Show.

# The MacNiff Horticultural Co.

54 and 56 Vesey Street, New York City

Send for our weekly Auction Catalogues and our Illustrated Seed Catalogue

# NEW ROSE GARDENS

If you contemplate making a ROSE GARDEN, you would do well by consulting us regarding the varieties that will supply you with continuous bloom all season

Rose Garden Designs We will be pleased to supply you, free of cost, a suitable plan for your ROSE GARDEN, if you will only give us the dimensions

Hybrid Tea or Everblooming Roses

We have on hand 45 of the best varieties of above. Also a fine collection of HYBRID PERPETUALS, CLIMBERS, STANDARDS and others

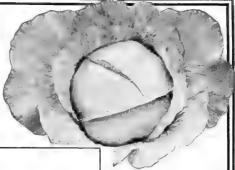
ALL STRONG TWO-YEAR OLD, THAT WILL BLOOM THIS SEASON

WRITE FOR OUR ILLUSTRATED CATALOGUE, MAILED FREE

W. E. MARSHALL & CO. Seedsmen and 166 West 23rd St., N.Y.

The state of the s

# Burpee's Seeds Grow



Cabbage, — Burpee's Allhead Early



Beet,— Burpee's Elack-Red Ball

# NEARLY FORTY YEARS OF SUCCESSFUL SEED SELLING

E are now in our thirty-ninth year of supplying "Seeds That Grow" to critical private and market gardeners' trade. For more than thirty years we have been selecting and re-selecting all of the leading vegetable and flower seeds. We feel sure that better seed cannot be produced.

Since first starting in business (1876) we have specialized in supplying seeds direct to planters who appreciate Quality. We have never sought a retail counter trade, as we feel that with easily understood catalogs, better service could be rendered by requesting the planter to make up his order in the quiet of his home, instead of waiting in line before a seed-counter. That our efforts have been successful is proved in that we now have the largest mail-order seed business in the world.

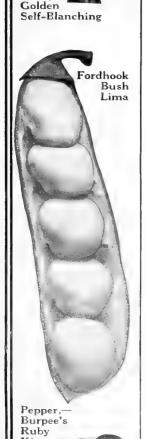
More than thirty years ago we decided that to secure seeds of the best quality it was necessary to produce on our own farms specially selected stocks, and this intensive work is now being carried on to a greater extent than ever before.

Fordhook Farms is the home of many special stocks in vegetables and flowers. At Sunnybrook Farm in South Jersey we specialize in tomatoes, peppers, cucumbers, muskmelons, watermelons and squashes. Floradale Farm, our California ranch in the Lompoc Valley, is famous as the California home of sweet peas. Vast areas throughout the United States are devoted—subject to close personal inspection—to producing seeds of the Burpee-Quality. Great Britain and Continental Europe contribute large quantities of the varieties that are there grown to the highest state of perfection. To garden intelligently you should know the seeds you buy.

The Revised Edition of our Thirty-Fifth Anniversary Supplement portrays by pen and picture the methods of the House of Burpee.

# BURPEE'S ANNUAL FOR 1915

This "Silent Salesman" is a bright new book of 182 pages, with hundreds of illustrations and carefully written descriptions of vegetables and flowers. It it a safe guide to success in the garden—of real value to everyone who plants seeds either for pleasure or profit.



Celery.

# Burpee's Blue List for 1915,

Gardeners Should Have These Books.

A Post Card Will Bring Both.

W. Atlee Burpee & Co.
Seed Growers. Burpee Buildings, Phila.

Corn, Burpee's Howling-

# H. PLATH, "THE FERNERIES"

SAN FRANCISCO, CAL.

Grower of Ferns, Palms, and Primula Obconica (Ronsdorfer Strain)

# RHODODENDRON MAXIMUM RHODODENDRON CATAWBIENSE

The two hardiest and best species known. Several thousand extra fine clumps, 1 to 5 feet, nursery-grown, with large balls mostly budded, in SURPLUS at my Highlands Nursery, Pineola, N. C. Don't miss the opportunity.

HARLAN P. KELSEY, Owner

Salem, Mass.



# MEEHANS' Handbook of Hardy Plants

" Louis of A. L. A. COURDING ORBIGANIA AND STREET

is now ready for you

a a managamunu , , cataninanan managaman a

A practical guide for the gardener unlike any other catalog, Over a hundred pages, profusely illustrated. Pescribes many new and rare plants.

Contains special departments devoted to plants suggested for special purposes and notes low prices on larger quantities -simplifying your purchasing problems.

Shall we send you a copy, Free? Write us today

#### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America
Box 65, Germantown, Phila.

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

and no mark marke and should all the state of community and the

# KENNEDY & HUNTER SEEDSMEN

IF YOU HAVE NOT RECEIVED OUR 1915 CATALOG, WRITE FOR IT NOW

156 West 34th Street One block from New York

"ONLY THE BEST"

ב התפונוים ממודים במה מה מודים המתחברות המה המה המתחום במודים מה מנו ביו ביו ציום בות מתכנות מתחום במתחום ותחו

# EXTERIOR DECORATIONS

IN EVERYTHING WORTH PLANTING

This is the title of a New Garden Book we shall be pleased to send you without charge if interested

We Specialize in Hybrid Rhododendrons, Choice Evergreens, Shade Trees, Shrubs, Rhododendron Maximum and Everything Worth Planting. Our business is built on a sure foundation—QUALITY FIRST.

Let us quote your requirements for Spring, 1915,

f. a. kelsey nursery company

150 BROADWAY

NEW YORK

STRATFORD

# BUYERS, ATTENTION!—SAVE MONEY!

We have for sale cheaper than elsewhere, Am. Arborvitaes, 8 to 10 feet; Pyramidal Arborvitaes, 6 to 8 ft.; Nordman's Fir, 8 to 10 ft.; Kosteri Blue, 8 to 10 ft.; Norway Spruce, 10 to 16 ft.; White Spruce, 10 to 12 ft.; Hemlock, 5 to 12 ft.; Austrian, Scotch and White Pines, 8 to 14 ft.

Hundreds, and in some varieties, thousands of specimens of the above.

Large Am. grown Rhododendrons and Kalimas. Large Deciduous trees and General Nursery Stock.

VISIT OUR NURSERIES. 20 YEARS ESTABLISHED

Reference, Dun's Mercantile Agency THE F. E. CONINE NURSERY CO.

# Profit by these Prices on "America's Most Beautiful Evergreen"



Grown

HENCE PEST-FREE, HARDY, VIGOROUS! GOOD TOPS; ABUNDANT FIBROUS ROOTS!

Root-Pruned and TWICE-Transplanted 3 TO 4 FEET HIGH—100 Trees, only LOWER PRICES On Lots of 1000 and Upwards

A Lighter Grade—ONCE-Transplanted—2 TO 3 FEET HIGH 10 Trees, \$2.50 1000 Trees, \$85 100 Trees, \$10

ALL F. O. B. SOUTH FRAMINGHAM MASS.

USE FOR Shelter Belts, Windbreaks, Snowbreaks, Dustbreaks, Noisebreaks, Screens and Tall Hedges. Use it for borders and avenue planting, and otherwise beautifying Estates, Parks, Ceneteries and Waste Lands. It increases land values tremendously. Use it to scheen unsightly spots; for country roadsides; for dry, barren hillsides, as it makes a wonderful background in the landscape picture; for underplanting in your woodlands and in shady places. White Pine is "the aristocrat of the Evergreens." Grows rapidly and vigorcusly. Transplants easily.

MANY MILLIONS OF ORNAMENTAL, SHADE, FOREST AND HEDGE TREES

WRITE NOW for Our Free Illustrated SPRING 1915 CATALOGUE. Explain Your Problems

TWICE-Transplant ed 2 to 3 foot grade White Pines Well-branched. straight, heavy

Little Tree Harms of America Boston

Department 4, 15 BEACON STREET, BOSTON, MASS.





# Hardy Roses for the Garden!

Plant Walsh's dormant, field-grown, two-year-old, budded roses in all the leading varieties in Hybrid Teas, Hybrid Perpetuals and Polyanthas. My collection of Ramblers in the choicest colors, strong three-year-old own-root plants, not budded, are described in catalogue as well as all the roses worth growing in the garden. Send for a copy!

M. H. WALSH, Rose Specialist Woods Hole, Mass.

# That Bare Spot in your lawn can be renovated by **BUNYARD'S**

# **Invincible Grass Seed Mixtures**

Made up of the finest recleaned seed

# BUNYARD'S "BRITISH LAWNS" **FORMULA**

This mixture is made from a famous British formula that produces the well-known lawns so much admired.

Prince 35c lb., 10 lbs., \$3.25, per bushel, 20 lbs., \$6.00, 10 bushels or more, \$5.50 per bushel.

#### BUNYARD'S CENTRAL PARK MIXTURE

An excellent mixture for re-seeding run down and worn-out lawns, Price = 25, lb, 10 lbs, 32.25, luskel, 34.00.

# BUNYARD'S PUTTING GREEN MIXTURE

Made up of grasses that will stird the wear and tear on the "Green."

Price: 50c lb.; 10 lbs., \$4.00; bushel, 20 lbs., \$7.50.

# BUNYARD'S TERRACE MIXTURE

up of grasses that are deep ricting and will held the soil, Prive, Suc. ib., 10 lbs., \$100, linkal, 20 lbs., \$750.

#### BUNYARD'S SHADY NOOK MIXTURE

Specially prepared to grow and ratees and when shade predominates,  $P_{eff} \approx 25 \cdot P_{eff} \cdot 10^{-12} \cdot 1.8 \cdot 28^{-12} \cdot 1.1 \cdot 1.1 \cdot 10^{-12} \cdot 1.0 \cdot 10^{-12} \cdot 10^$ 

If y it have "Lawn Trouble," do pline a line and L will send y it my interesting booklet, "The Lawn Green".

Harry A. Bunyard Co., Inc. Grass Seed 40 W. 28th St., New York City Specialists Between Broadway and Sixth Ave

VISITORS WELCOME

# AMERICAN COMPANY

SINGER BUILDING, NEW YORK

**EXCEPTIONAL FACILITIES** 

# SIX HUNDRED ACRES

**EFFICIENT** SERVICE

**TREES SHRUBS** VINES. ETC. Our Bloodgood Nurseries, Flushing, L. I., were established in 1790. Together with our F. & F. Nurseries, Springfield, N. J., we offer you exceptional facilities based on quality which has stood the test of mine. We shall be glad to figure with you covering your Spring planting needs. 72 page catalogue on request. catalogue on request.

**EVERGREENS PERENNIALS** RHODODENDRONS ETC.

 ${
m Years}$ 

EXPERIENCE

125 Years

# IMPORTED ORCHID

# Cattleya Trianae

- Mossiae
- Labiata
- Percivalliana
- 46 Schroderae
- Gigas Sanderiana
- 66 **Speciossisima**
- Gaskelliana

and many others

If you contemplate buying imported stock this year write to me.

IOSEPH MANDA, West Orange, N. J.

Orchid Expert, Seedsman & Florist

# **EVERGREENS**

70 VARIETIES

In sizes from 6 inches to 16 feet. Many of these are priced at wholesale rates. As it is the root that largely determines the value of the tree

We Go to the Root of the Matter

and produce the best roots that can be produced by good ground, long experience and scientific methods. Utmost care is used in digging and packing. That our customers succeed is shown by the fact that we have sold 51,000 trees to one man in ten years.

# IRISH ROSES

in 200 varieties, including Everblooming, Choice Climbers in 2, 3 and 4 year sizes, and Tree Roses on heavy Rugosa Stock.

A fine lot of Dwarf and Standard Fruit Trees, Hardy Perennials, Vines, Shrubs, and Deciduous Trees, many of them in Extra Sizes for immediate effect.

Liberal Discounts on Large Orders.

Your address will bring at once Booklet No. 35, giving Sizes and Prices, and June 1st Booklet No. 36, our Import Price List of Dutch Bulbs at 20% less than Fall Prices.

## ROSEDALE NURSERIES

BOX O

TARRYTOWN, N. Y.

# 2,250,000 POT PLANTS

Do you know what one million and a half 2-inch plants and three quarters of a million 3-inch plants look like. If not, we invite you to come here and see it.

We have Geraniums, Coleus, Double and Single Petunias, Salvia, Lamanas, Lemon Verbenas, German and English Ivy, Alternantheras, Heliotrope, Cannas (3-in. pots), Alyssum, etc., in large quantities at \$3.00 per 100, \$25.00 per 1,000, for two-inch; \$4.00 per 100, \$35.00 per 1,000 for three-inch. Write for Special prices on large lots.

DAHLIA and CANNA ROOTS

CASH WITH ORDER

If you did not get our catalogue send for it.

R. VINCENT, Jr. & SONS CO.

White Marsh, Md.

# Choice Carnation Stock Pot Plants

WING to the many demands made upon us from private estates during the past years, we are this year prepared to make delivery of young stock from two-inch pots of the varieties listed below. Stock to be all of COTTAGE GARDENS QUALITY and packed in the most careful manner. Deliveries to begin March 1st. Stock will be sent by either express or parcel post. If by parcel post, transit charges will be added to the bill. Order early to insure prompt delivery.

# MATCHLESS

Our own unsurpassed white, disseminated last year. It is making good in every way.
From 2-inch pots, \$1.50 per dozen
\$10.00 per hundred

# CHAMPION

Another of the recent introductions that are "making good." Disseminated by Dorner, it easily leads the reds.

From 2-inch pots, \$1.50 per dozen \$10.00 per hundred

# GOOD CHEER

Dorner's introduction for 1915. A dark pink that is unsurpassed for large production.

From 2-inch pots, \$2.50 per dozen \$20.00 per hundred

## ALICE

The latest introduction of the incomparable Peter Fisher. A flesh pink variety, the largest producer Fisher has sent out.

From 2-inch pots, \$2.50 per dozen \$20.00 per hundred

# PRINCESS DAGMAR

Patten's beautiful crimson. A flower of wonderful size and stem. Introduced last year. From 2-inch pots, \$1.50 per dozen \$10.00 per hundred

# MRS. C. W. WARD

Description of this popular pund.

One of our own introductions.

From 2-inch pots, \$1.00 per dozen \$5.00 per hundred

#### BEACON

Another variety a description of which is need-Introduced by Peter Fisher. The most popular red.

From 2-inch pots, \$1.00 per dozen \$5.00 per hundred

# ENCHANTRESS

E : 1 - Surem of more different contractions of the contraction of the

The most easily grown carnation of all. Introduced by Fisher. Flesh pink.
From 2-inch pots, \$1.00 per dozen

\$5.00 per hundred

# COTTAGE GARDENS CO.

Carnation Specialists

**QUEENS** 

**NEW YORK** 

# \$150,000 FIRE AT CEDAR ACRES

YEARS AT CEDAR ACRES Gladioli Exclusively

(6.9) varieties under cultivation. Let vert = 0.3 (C) catalogue lists a solice tion of He bost of these gay og ver-faie (Crieff ef our experience).

Letter from Mr. Tracy to the Readers of House & Garden: My Tricuds

My Friends

Before the each had slewn in the first the legatic at testar Arriss on the intring of Nevinher 22ad we were birst militing plant for confirming of birshiness.

Tennetic the many expressors of sympathy which laye come to us were given the contage to start over again. We have the advantage the fine, of all our past expression and the knowledge of Gladobis culting that these verys have given the knowledge of Gladobis culting that these verys have given the knowledge of Gladobis culting that these verys have given the knowledge of Gladobis culting that these verys have given the smooth of the first these verys have given the summer, the distinction of all maning 0.1, and is placed through the summer, the in fact, all officeroids. If you gradobis we would be very glad to receive rames and addresses of only on a post the aid, so that we will distinct the work of all your past confreshes, both to Mis. That and for yself, I am.

Sincerely yours,

(812), (4). B. Hammond Tracy

#### Signal B. Hammond Tracy

Lor years I have devoted all my time Let verts I have devoted all my time of thought to improving the Globe has and ratsing better bulbs. It is both my hustness and my pleasure I will gluffly insver my quiestions in Fegard to the "Oreind of the Garden," its outline, the hist varieties, etc. There will be no charge

B. Hammond Tracy, Wenham, Mass. Cedar Acres, Box 5.

# Suffragette Cosmos

It blossoms in early July till frost, and no variety of fall cosmos surpasses it in size of blossoms, long stems, or luxuriance of bloom.

A long list of high class gardeners, everyone knows them, say: "It is the best cosmos we ever saw; it takes the place of summer and fall varieties."

Send for booklet and see who they are and what they say about the "Suffragettes." Plants only. Your money back if you are not entirely satisfied.

# EDWARD LEWIS

( 40 t018))), t = 1 + + 6 - T

Cosmos Specialist

Opins Arres

Gladioli

DERBY, CONN.

# WATER LILY PONDS

#### FOR PRIVATE ESTATES AND PUBLIC PARKS

Consult me before planting and let me suggest to you the varieties best suited for your conditions.

If you will tell me the size of your pond, whether artificial or natural, I will submit a list of plants, that, with ordinary care will produce splendic flowers for you.

Write for my new book containing illustrations and descriptions of my new varieties.

# WILLIAM TRICKER

WATER LILY SPECIALIST Box W ARLINGTON, N. J.

Phillip commit

We are growing, for your use, some excellent

# Standard Heliotrope

Stems From 2½ to 3½ Feet

Price, \$1.00 to \$2.00 Each

We grow Bedding Plants in quantity

Let Us Know Your Requirements

A.N.PIERSON INC.

BU NE DEPOSITION DE PROPERTIE DE LA CONTRACTION DEL CONTRACTION DE LA CONTRACTION DE

# BLACK PINE (Pinus rigida) BANKSIAN PINE

Two of the best pines for seashore and woodland planting. Several thousand in SURPLUS from 3 ft. to 8 ft. in height. Let me quote you.

HARLAN P. KELSEY, Owner

Salem, Mass.

(From my Highlands Nursery, Pineola, N. C.)

# **BEDDING OUT TIME**

It is time to think of bedding plants. Of course you will want to be up-to-the-minute and have a good display of SNAPDRAGONS. They are showy and satisfactory. If interested I will be glad to send my list of high-class novelties, which is headed by my famous Silver Pink, the greatest of all outdoor or indoor varieties. Write today. G. S. RAMSBURG, Somersworth, N. H.

# Chrysanthemums—Carnations—Roses

NOVELTIES FOR 1915

If you did not receive our 1915 price list write us

Elmsford Nurseries—Scott Bros., Elmsford, N. Y.

# CANNA "FIREBIRD" THE BEST OF ALL SCARLET CANNAS

Each 75c.; Per Dozen \$8.00

Write for big 160-page catalog. Free

Vaughan's Seed Store 43 Barclay St., New York 31-33 W., Randolph St., Chicago



Scheepers' High Grade Formosum Lilies.

IN/HY bother with retarded Lilium Giganteum? Use retarded Formosum instead, giving greatest satisfaction. We have cases of 50 bulbs, size 12 14 inches, \$18 per case. All other bulbs and roots in our usual highest quality. Buy from Specialists.

> JOHN SCHEEPERS & CO., Inc. - BULB SPECIALISTS -2-4 Stone Street

#### ORCHIDS

We are Specialists in Orchids, we collect, grow, Import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N. J.

# **EVERGREENS**

Send for Price-list. Mention this magazine.

D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America. Box 305 Dundee, Ill.

# HARRY BALDWIN

Manufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS

MAMARONECK, N. Y. н сонтиния выправления попрываем в попрынаем попрываем попрываем попрываем попрываем попрываем попрываем попры

# DREER'S GARDEN BOOK FOR 1915

Enlarged to 272 pages and handsomely illustrated with hundreds of photo-engravings, four beautiful colored plates, four duotone plates and gives many cultural notes written by experts. It is brimful of information valuable to both amateur and professional gardeners.

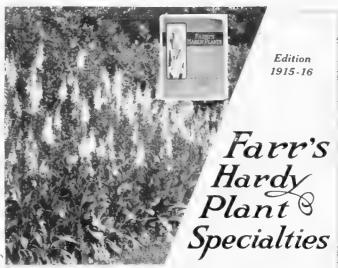
DREER'S GARDEN BOOK is indispensable to every one interested in gardening and offers the newest Roses, best varieties of Dahlias, and largest assortment of Hardy Perennials, Aquatic Plants, Bedding Plants, etc., also Flower, Vegetable and Farm Seeds, Lawn Grass Seeds, Tools, Implements and everything else required for successful gardening.

> Write today for a copy, FREE and please mention this Publication.

# HENRY A. DREER

714-716 Chestnut Street Philadelphia, Pa.

# mangaminisa ana ang ara ang masa



Is a most tath it take a more call dogue -describing in an extremely interesting way the habits, the form, the likes and dislikes of my favorite perennial plants, with notes about the time of blooming and colors of the flowers. There are many illustrations of Irises, Peonies, Delphiniums, Aquilegias, with twelve full-page plates in natural colors (reproduced from Lumiere plates), just as the flowers grew here at Wyomissing.

# Over Five Hundred Varieties of Peonies

are accurately described, the text having been prepared from my own field notes. The hundreds of varieties of Irises are described, and I tell how and where to grow them. Other favorite lardy plants are the Phloxes, Asters, Poppies, a choice selection of Roses, together with a unique collection of the new and rare Lilacs.

This Book is for you if you write for it. I trust that it will be an inspiration to you, as its predecessors have been to others who love the hardy plants that are a never failing source of delight from early spring to fall.

# B. H. FARR, WYOMISSING NURSERIES,

Garfield Avenue, Wyomissing, Penna

# To Our Advertisers

That we may comply with the wishes of many of our readers, who have expressed a desire to receive The Gardener's Chronicle at an earlier date than it is now published, we have decided to change our publication day to the tenth of the month, instead of the twentieth, as heretofore.

# Beginning with the April Number

advertising forms will close on the first day of each month, for the issue of the current month and not, as heretofore, on the tenth of the month.

KINDLY NOTE THIS CHANGE FOR FUTURE ADVERTISING COPY

THE CHRONICLE PRESS. INC., Publishers

THE GARDENER'S CHRONICLE OF AMERICA

# The Contents---March, 1915

Page	Page
Making the Garden Habitable	Among the Gardeners
Prof. Frank A. Waugh 107	American Association of Park Superintendents'
Horticultural Progress in This Country	Notes
The Late Peter Henderson 111	Park Department Personals
Is the Chrysanthemum's Popularity Waning? Wm. Kleinheinz 113	The San Diego, California, Exposition 131
Traditions of the Fathers	The Linking of the Minneapolis Park Lakes
The Phipps' Hall of Botany, Pittsburgh, Pa 115	Theo. Wirth 133
The Robert Burns Monument, Pittsburgh, Pa 116	Construction Problems in Road Building 135
Phytochemistry to Solve Our Soil Problems	The Panama-Pacific International Exposition . 137
W. A. Hamor 116	Six Months of Spencer Sweet Peas
Bird Protection and Its Scope Paul B. Riis 117	Thomas Ryan 140
Orchid Culture Is No Magic Art	Aubrietias in the Spring Garden
W. R. Fowkes 118	Work for the Month of April Henry Gibson 144
Conifers—Their Usages, Plantings and Enemies	Growing Strawberries from Seed
Henry Kelly 120	C. H. Chamberlain 146
Champion Roderick of Closeborn 123	Growing Cantaloupes
The History of the Kew Rock Garden 124	International Garden Club
Red-Stemmed Dogwood	Lenten Horticultural Lectures
The White Buddleia	American Red Cross at New York Spring Flower Show
Miniature Gardens for Decorations	Garden Club Day at New York Spring Flower
Vegetables and Flowers from the Cold Frames	Show
Duncan McIntyre 126	Directory of National Associations
Editorials	Directory of Local Societies
Oh, Everything's A-Goin'	Directory of Garden Clubs
James Whitcomb Riley 128	Horticultural Events
National Association of Gardeners' Notes	Local Society and Garden Club News
Transmit Addition of Gardeners Hotes 129	

# We invite you to visit our Exhibit at

# The New York Flower Show

OF

# NEW and RARE SPRING FLOWERING BULBS STAIGREEN LAWN SEED

Our representatives will be pleased to talk with you about our exhibit



# GARDENERS' CHRONICLE

# OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Herticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

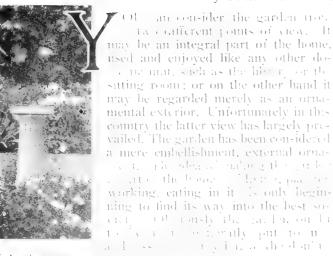
Devoted to Park Development and Recreational Facilities.

Vol. XIX.

MARCH, 1915

# Making the Garden Habitable

By Prof. Frank A. Waugh, Massachusetts.



These different views of the purpoles of a garden lead to very different methods of design and treatment. If a garden is to be part of the house it must first of all have privacy. We cannot live our family life in the garden if the spaces are left open to the ob--ervation of all the neighbors and of strangers passing

Such privacy is secured in old-world gardens by high walls of brick or stone. It is not feasible in this country to adopt such exclusive habits, but at any rate we can do much in the direction of domestic privacy by simpler means. Hedges and screens of trees and shrubbery are the most natural and often the most effective means of shutting in the garden and shutting

After a certain amount of privacy is secured the garden next needs some furnishings. An unfurnished garden is as dreary and hopeless as an unfurnished





A FORMAL GARDIN WITH PERGOLA AND FURNITURE

Now our American gardens are largely unfurnished. All the furnishings necessary for family life, for human comfort, for interest and entertainment are completely lacking. Our common talk about gardening



A HABITABLE CORNER OF A PERGOLA

completely ignores furnishings, concerning itself simply with trees, shrubs and flowers.

The point at which American life first breaks through toward the garden is on the family porch.



FOR AN ORNAMENTAL GARDEN STONE SETTING IS EFFECTIVE.

We often talk about porch life, which is a kind of outdoor life halfway between the garden and the house. At any rate there are many families who are unwilling to shut themselves up quite within the four hard

We are a letted to the Wigner Linds po Service B Hunk & Atlans, Hartman-Sanders Company and Galloway Terra Cotta Company for the illustrations here reproduced.

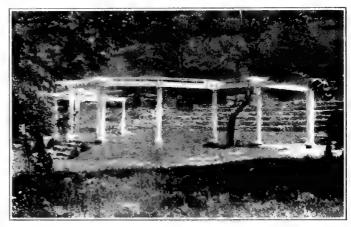
walls of the house, and who find some relief and refreshment on the porch. They read and visit there, serve tea, and some even play bridge. Many progressive people have sleeping porches whereby they project the daily life halfway into the garden.

Now this porch life simply represents one stage in



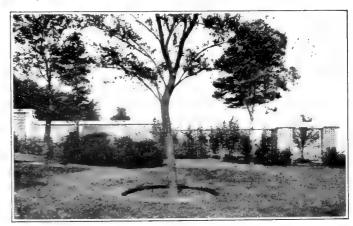
A SPITTER UNDER A LARGE TREE MAKES A COZY NOOK

progress. The next and natural stage would be to move further into the grounds and to get more of the sky. Also more of all the joys and satisfactions of outdoor living.



OUTDOOR THEATRE WITH TERRACED TURE SEATS

In modern garden magazines we read a great deal about pergolas. As I understand a pergola, it is an architectural figure primarily designed to connect an outlying architectural element with the main house.



LATTICE PEXCE SERVING AS WIND SHIFTD AND TO OBSTRUCT AN UNDESTRABLE VIEW.

It is a distinct extension of the dwelling house. It should furnish more or less shelter. Its whole tendency is to carry domestic life farther into the garden. Of course we must allow that, as fashionable pergolas are designed, they do not always accomplish this end, but I am suspicious that the pergola has not always been fully understood by the architects who did the planning or the suburban dwellers who paid the bills.

It is hard to tell the modern fashionable pergola in all cases from the old-fashioned arbor or summer house. My own notion is that there should be a difference in that the arbor or summer house should always be a detached unit at some little distance from the main dwelling. Whatever the name of this detached shelter, whatever the architectural style, whether simple or elaborate, whether cheap or expensive, its real purpose should be perfectly evident. It is to supply another attraction in the home grounds. It should serve as a place where people may stop and

have musical or artistic tastes. Or the place may become a children's play house, and may indeed be designed primarily for their enjoyment. If the place is so fortunate as to abut upon a lake or practicable stream, the family will of course want to keep a canoe or a motor boat, and these would call for a boat house, which may in its own way become the center of the outdoor domestic life. In fact, anything which will add interest to the outdoor life about the grounds is to be considered a part of the garden and to be provided for frankly in this way.

The creature comforts of life depend largely upon seats and tables. If the garden is really to be inhabited, there must be places to sit. Perhaps the most necessary furnishings of all are seats. In this respect our American gardens are sadly unfurnished. Such few garden seats as we see are obviously intended for ornamental effect and not for comfort. I remember well the German garden of Willy Lange, instructor in



THE CHILDREN'S PLAYGROUND WITH SHELTER HOUSE, WADING POOL AND SAND PIT. THEY SHOULD BE FOUND ON MORE OF THE PRIVATE GROUNDS.

find rest, shelter, and an outlook upon the beauties of the garden. It should be in its way quite as useful a part of the home as any room in the house. In it we might carry on many of those pleasant domestic diversions which now occupy the porch. We may play cards there or serve supper, or visit with the dog. A man might even meet his children there and become somewhat acquainted with them.

The fact is, that many of these different architectural garden features differ from one another chiefly in their names. Their purposes are exactly those already described. That is, they serve to ornament the garden, to add interest to it, and to give opportunity for various daily activities outside the house, but still within the home. Thus, if we were to speak of the tea house in the garden it need not be anything essentially different from an arbor. It may mean that we will serve tea here on pleasant afternoons during the summer, or it may not.

In like manner the garden shelter may be called a music house or a studio, if members of the family

landscape gardening, who lives in one of the suburbs of Berlin. In his snug little home-garden of about an acre there were nine different stations furnished with seats, and at six of these convenient stops tables were added. No one could visit the garden without lingering somewhere to sit and chat, and usually to have some refreshments served. This garden was meant to be lived in.

Tables and seats therefore ought to be furnished in every garden just as they are inside the house. They should be placed at the most effective points, that is, the points of best inlook and outlook. There should of course be seats and tables in most of the garden shelters whether those shelters be called tea houses or studies. There may be seats and tables under shady trees in sequestered nooks, and at all points where fine views are to be seen.

These seats and tables may be of any character. The fine classic marble tables and seats which we see especially in our American formal gardens are not to be criticised. They are perfectly good in their way.

We ought to have more of them, and better ones. At the same time it must be admitted that they are not very comfortable for use, and what we are thinking of now is more particularly seats and tables which may be used with the greatest possible creature comfort. The rustic chairs and tables of the past generation were almost as useless from this standpoint as the Italian marbles of the present fashion. What we need is something plain, substantial, attractive, and, above all, comfortable.

Several styles of landscape gardening have insisted strongly upon the introduction of water into every garden. The famous Italian gardens practically never omitted the water features. It is said that the classical Japanese gardeners insist upon the presence of water in some form in every garden scene. We all know how greatly water adds to the charm of every garden, and we may well make suitable sacrifices in order to

secure such great advantages.

Whatever form the water may take, it adds materially to the interest and often to the practical comfort of the garden. Every place which is fortunate enough to have natural ponds and streams has therein a very great resource. Such features should be played up for all they are worth. They should be developed not merely for the artistic effects which they will produce, but for the practical satisfactions which they may bring into the daily domestic life in the garden.

Then there are fountains. Perhaps the fountain is the most effective way, pictorially speaking, of presenting water within the domestic garden. It appears that our American ideas of fountains are highly inade quate, being founded chiefly upon the cast iron squirtguns and dribbling geysers introduced years ago. It



requires a fairly good designer to make an artistic fountain, and features of this emphatic character should be introduced into any garden with a great care. A really successful fountain, however, is a joy forever. and no opportunity should be omitted which might yield a good result in this character.

We may speak a special word for bird fountains. A water offering satisfactory to the birds can be made

without enormous expenditure for engineering or for the services of a sculptor. Inasmuch as birds are a most attractive embellishment to any garden where they may be brought in, and as the bird fountain may be an attractive feature also in itself, this idea is worthy of special study.

A quiet pool, either formally or informally treated, may become also a most attractive feature of any garden. It offers an opportunity for growing many beautiful plants which otherwise would be inadmissible, it multiplies the garden picture by its reflections, and in every way it brings into the garden those gracious sentiments and sympathies which are most required

to make the garden a success.

After all is said and done, a garden is partly ornamental as well as useful. It must be beautiful and full of pictures. In building up these pictorial effects it is often desirable to introduce furnishings of a purely ornamental character, and such as do not have any justification in actual utility. Garden statuary has always been a subject of consequence. While statuary has been used mostly in formal gardens it can also, with some careful study, be introduced effectively into informal gardens. It is quite unfortunate that the art of the sculptor is so poorly patronized, and consequently so meagerly developed in our country. If we were able to have appropriate statuary at the prices which people of moderate means could afford, we could readily add much of interest and beauty to our

Simple columns of stone, marble, or even of wood, serve to add effect to certain points in gardens. This applies especially to the design of formal gardens, but

is open for consideration elsewhère.

The sun dial has come to be a favorite fashionable garden feature. The gazing globe is just as useful and sometimes more attractive, though there seems to be less literary interest in it. Then at various places throughout the carden we may use vases and bowls of all sorts for potted plants and other purposes.

V bird house may become a striking and attractive feature of the garden; and if we undertake a definite campaign for the attraction of birds this would be a

very natural line of development.

The garden gate lass o much sentiment attached to it that one only has to mention it to commend it. In fitting the garden with those accessories most comsatible with human life and enjoyment, there should be

now and then an artistic gate.

Garden furnishings of all sorts have been rare and expensive in this country. The expense of getting good furniture h s accounted in many instances for the unfortunate conditions of which we have already complained. Of coarse, it is impossible to get the finest kind of statuary, the best kinds of fountains or Leautiful marble seats except upon payment of relatively large sums. Such payments would be wholly justified in many cases. They would not be out of scale as compared with the cost of similar furnishings

Some of the fashionable garden furniture is made of high grade lumber and painted or enameled white. Such pieces, if well designed, are extremely effective artistically. In many situations, however, it is quite as practical to make furniture of heavy rough lumber in the undressed state, leaving this to take its own color by weathering, or staining it with dull neutral stains. Considerable ingenuity and practical sense are required to design and build furniture of this sort. It is a field in which American gardening has not experi-

mented sufficiently.

# Horticultural Progress in the United States

By the Late Peter Henderson.

The first botanic garden of which we can obtain record in this country, was established in Philadelphia by John Bertram in 1728, which gave an impetus to horticultural taste in that city that enabled it for many years (probably up to 1850) to claim the possession of the finest collection of plants, both private and commercial, of any city in the Union. New York started later. Although we find that, as early as 1750, places were advertised for sale on Long Island, and among the inducements offered to purchasers it was mentioned that they had "flower gardens attached"; and in 1756, others were offered as having "greenhouses filled with tropical plants." To show indisputably that there was some general taste for floriculture at that early period, we find that in 1751 a pottery at Whitestone, L. I., is under way, and advertises that "any persons desirous may be supplied with urns and flower pots to adorn their gardens." In 1767, William Prince, of Flushing, offers a great variety of fruit trees, such as pear, apple, peach and plum, packed so that they can be safely sent to Europe; and later, in 1774, in the New



TITE OF THE HEALTH NO. RSON

York Mercury of that year, this enterprising horticulturist advertises that he has added ornamental trees to his grounds, and offers "the Magnolias of the Carolinas and other rare trees and shrubs.

Mr. Prince was an enthusiast in all departments of horticulture, and by the beginning of the present century had added to his nursery of fruit and ornamental trees a greenhouse department, which contained a very full collection for that time. In a "Short Treatise on Horticulture," which he published in 1828, he describes 37 varieties of camellias, 13 species of amaryllis, 90 varieties of dahlias, and 67 species and varieties of pelargonium, as being a portion of his collection. The Prince Nursery at Flushing was then known as the Linnean Botanic Garden, and had, by the wonderful

energy of its proprietor, a rare and interesting collection of trees and plants, some of which were eventually lost to cultivation, until again introduced here from Japan, by Mr. Thomas Hogg, notably among which was the Japanese persimmon, now attracting considerable attention as a new fruit for our Southern States.

Another botanist, Dr. David Hosock, started the Elgin Botanic Garden in this city, in 1801, and in his catalogue for 1811, nearly 3,000 species of plants were described, among which 500 were greenhouse exotics. The curator of the Elgin Botanic Garden at that time was a Mr. Dennison, who began business as a florist in 1814, in this city, at a point near where the Fifth Avenue Hotel now is, and which at his death, in 1822, was leased to Thomas Hogg, who was the father of the present Thomas Hogg, to whom the world is so much indebted for his valuable introduction of Japanese plants. A Mr. William Wilson, a contemporary of Thomas Hogg, was the author of a book on Kitchen Gardening, and was, with Dr. Hosock, one of the originators of the first Horticultural Society in New York, in 1818. Another prominent horticulturist of that day was Mr. Thomas Bridgeman, who kept a seed store at Seventeenth street and Broadway, which is still managed by his descendants. Mr. Bridgeman was the author of the "Gardeners' Assistant," a work having a large sale, to which hundreds of European gardeners, on coming here unacquainted with the American climate and plants were much indebted. By 1840, commercial horticulture had come to be liberally patronhad been estalished of considerable extent in Long markets were fairly supulied with fruit a flowers, and vegetables, but meagre heleed to what they are tody v. The advancement in floriculture has been much the greatest. In those days the gorgeous designs formed by cut flowers, now such a feature in all our large cities, had no existence, and the wonderful plants of the tropics now seen in such profusion and variety emmost unknown. In nothing, perhaps, has horticulture advanced so much as in the beautiful designs that cut flowers are made to form, and which in New York today are unsurpassed by any city in the world.

In 1844 the writer was an assistant in one of the then largest floral establishments in New York City. If a wreath was to be made, its base was usually a piece of willow or a barrel hoop; if a cross, two pieces of lath formed the groundwork, and the work, when done. was usually such as reflected but little credit on the artist. Bouquets were then about the only style of design in cut flowers; these were usually made flat or one-sided, the groundwork being arbor vitae, through which the stems of the flowers were drawn. Bouquets made round were rare, for floral art had yet developed but few fitted to cope with such an undertaking, and the few who did made poor work indeed. Our sales of flowers at that establishment for New Year's Day in 1844 amounted to hardly \$200; and probably for the whole city of New York it did not exceed \$1,000. Now, it would probably be no exaggeration to say that New York pays \$50,000 for its flowers for decoration on that day, and that its trade for the year for these perishable

commodities runs into the millions.

It is estimated that there are 500 florists' establish-

<sup>\*</sup>An essay read before the Horticultural Scriety of New York by the late Peter Henderson, March 9, 1886. The beginning of the twentieth century is witnessing Mr. Henderson's hopes realized, for New York has aroused an interest in horticulture.

ments within a radius of 10 miles from the City Hall, New York, and that the capital invested in land, structures and stock, is not less than \$8,000,000, the product of which is mainly for New York City alone; and when we consider that New York contains only about one-fiftieth part of the population of the United States, and that horticultural taste is certainly not higher here than the average of the country, it will be seen that the business of floriculture alone, without taking into consideration that of fruits or vegetables, is one

of imposing dimensions. There is but little doubt that in nearly all the manual operations necessary in horticulture we are in advance of Europe; and no better evidence can be had in proof of this assertion than the fact that the cultivator gets one-third less for his products in the markets of New York or Philadelphia than these same products bring in London or Paris, though the price paid for labor is one-third higher here than there; nor does it tollow that the cultivator here works at less profit for he does not; so that the only solution of the anomaly is, that our necessities have compelled us to make such progress in our operations that our crops are produced with less labor. For instance, when in London in 1872, I saw twenty men in one squad digging the ground in one of their market gardens with spades. For the past thirty years there was not a market gardener on Long Island or in New Jersey who would allow his ground to be dug with a spade, even if done for nothing, for he knows that the plow and harrow will pulverize the soil better; but John Bull, in the neighborhood of London, at least, had not found that out in 1872. It is, no doubt, the tenacious adherence to such primitive methods that is making Europe in

many of the industries of the day play second to the

United States. Yet it must be admitted that in some phases of horticultural progress we are yet far behind Europe, particularly in the ornamentation of our public grounds. We have nothing to compare with the Battersea Park, London, the Garden of Palms of Paris, or the Phoenix Park, Dublin; and when comparison is made of the grounds surrounding the villas in the suburbs of these European cities with our suburbs here, the comparison is, if possible, more against us, for there it is rare to see a neat cottage without a well-kept lawn and good taste shown in the planting of its flower beds, its welltrimmed fruit trees and neat vegetable grounds. Here, as yet, we have hundreds of expensive mansions, particularly in the suburbs of New York where the socalled gardens surrounding tell all to plainly the necessity for a better school of horticulture. We can excuse the wife of a day laborer planting her seeds of morning glory or lady slippers in the potato or corn patch; but when the owner of a \$10,000 cottage has the vulgarity to invade his flower beds with beets and tomatoes, he is carrying his utilitarian principles beyond the bounds of ordinary good taste. But against these instances of coarse taste, happily getting less each year, we have hundreds of cases where the decoration of private grounds by flower beds not only shows the refinement of the owner, but at the same time gives pleasure to thousands of the people, to whom the adornment of the parlor is as a sealed book.

Within the past ten years the style of decoration known as "ribbon lines" or "massing in colors," has made great progress, and is well done in the public parks of Boston, Philadelphia, Cincinnati, Baltimore and Albany, and is a never-failing attraction to strangers on a visit to these cities; and to none more than those from New York, for the feeble attempts at

flower decoration made by our Central Park, or the Prospect Park, Brooklyn, has hardly been such as to make them aware that the thing has ever been attempted. But if our commissioners are so far behind those of our sister cities in making our public parks attractive, private enterprise, we are happy to say, is not.

Llewellyn Park, Orange, N. J., owned by private gentlemen, has scores of villas unequaled in decorative planting, and the extensive grounds of Mr. Hoey, of Long Branch, N. J., Mr. Sargent, of Fishkill, and Mr. Dinsmore, of Stattsburg, N. Y., and many others less publicly known, are models of gorgeous beauty during our summer months, and offsets, to some extent, the inefficiency of those in charge of our public parks, who so poorly appreciate the public wants.

Boston, Philadelphia, Cincinnati, Baltimore, and Albany have not only left us behind in the decoration of our public parks, but the three former have advanced far ahead of New York in matters connected with societies for the advancement of horticulture; although, as I have before stated, our first New York Horticultural Society was started in 1818, it can hardly be said to have been a long-continued success. For many years it passed out of existence, till resuscitated as our present society in 1876.

The Boston Horticultural Society was started in 1829. Its hall, costing about \$250,000, was built in 1865. The society has had almost unvarying success from the start, and particularly since the erection of the hall in 1865.

The Horticultural Society of Philadelphia was begun in 1828. Its first president was the well-known Horace Binney, and, among the members of the acting committee in 1829, we find the names of Nicholas Biddle, Robert Patterson, Caleb Cope, and David S. Brown, who were at that time the leading citizens of Philadelphia. The building of the Horticultural Hall was completed in 1866. It covers a plot 75 x 200 feet, and cost \$221,000. As in Boston, the erection of a building for the special use of the Horticultural Society gave a great impulse to the work in Philadelphia.

The Department of Horticulture in the Cincinnati Industrial Exposition last year gave \$5,700 in prizes; and on the days on which there was special floral displays the receipts at the gates averaged \$3,000 more than on other days.

There is no question that the successful condition, so long continued, of the Horticultural Societies of Philadelphia and Boston, has had much to do in accounting for the more general taste displayed both in the public parks and private grounds in and about Boston and Philadelphia than at New York. Without some centering point where new or rare products can be exhibited for comparison or competition, no individual effort, by advertising or otherwise, can bring them before the public; thus the finest or rarest specimens of fruits or flowers may be hid for years, or even completely lost to the world; or, on the other hand, articles without merit may be offered for sale, either through the ignorance or dishonesty of the vendor. But this, in places where there is a live horticultural society, can never be done to any great extent; for without the society's stamp of merit, the sale must ever be limited.

Our New York society is now in a fair way to emulate Boston and Philadelphia, and before long it is to be hoped, we will be in a condition where our influence will be so felt that we will no longer be ashamed of comparison with those or with any other cities of the Union.

# Is the Chrysanthemum's Popularity Waning?

By Wm. Kleinheinz,\* Pennsylvania.

Year after year we hear the same prophecy—"The chrysanthemum is losing its popularity." We hear it regularly every fall and yet a visit to any of the wholesale florists' establishments, the greenhouses of the commercial growers, or last, but not least, to the private conservatories, or gardens, when this beautiful flower is in bloom, will quickly convince you that the predictions, "mums are going out," are uttered by false prophets. It is true that some years ago in Boston and some other

"ODESSA" GROWN OUTDOORS AT OH FIELD, CAL.

cities interest dwindled somewhat in the large chrysanthemum blooms, but in the last few years interest has been renewed in them to the extent that their popularity is greater today than it ever has been.

As an exhibition flower there is nothing that can compare with the large flowering chrysanthemum and, to my mind, there is no comparison between the spring flower shows and the chrysanthemum shows in the fall. A spring flower show, of course, has this advantage, that hundreds of varieties of different flowers can be had in bloom whereas the selection in fall is restricted to a much smaller choice, but the chrysanthemums, their different shapes, the various shades of color and their increase in size year after year make the shows at which they are exhibited always most interesting.

Another superiority of the chrysanthemum over all other flowering plants is the manner in which it can be grown into large specimen plants. Nothing in all cultivation is so attractive as a well-grown specimen chrysanthemum plant. Just think of the wonderful specimen plants annually exhibited, at the fall show of the Horticultural Society of New York—fourteen feet in diameter, with over fourteen hundred blooms to the plant. Let me also refer to the chrysanthemums grown to single stems

in six-inch pots, which are to be seen at every chrysanthemum show and which always elicit much favorable comment.

I have plenty of evidence at hand that our large commercial growing establishments are finding the demand for the large flowering chrysanthemums increasing enormously yearly, and there appears to be no sign in sight of the demand diminishing.

The single chrysanthemum I would place in a class all by itself. During the past ten years wonders have been wrought by our hybridizers and raisers of those magnificent flowers. Not only for grouping arrangements, as they are frequently used at our shows, but for many other kinds of decorative purposes, can these flowers be effectively used, in planting out in the open.

The pompon varieties are not quite as suitable for outdoor planting as they flower somewhat later, but they are also a strong factor in the garden when used for a border or for mass planting. Some years, when overtaken by heavy early frosts, the pompons do not have a chance to mature to their full beauty, but under normal conditions some very fine outdoor displays can be had. The pompons are also grown quite extensively under glass and are a good addition to the single and large flowering mums. But of all the different kinds I must proclaim the large flowering chrysanthemum the leader of them all.

Our growers and hybridizers in this country as well as abroad never rest and year after year improvements over the great existing varieties are introduced and varieties we thought well of a few years ago are forgotten and replaced by superior ones.

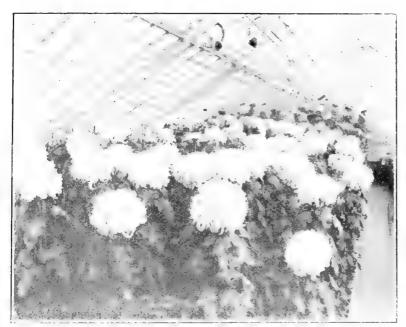
The fact that the earlier and single varieties are becoming more popular does not mean, as some people seem to think, that the large 'mums have seen their best days,



WM TURNER GROWN UNDER GLASS IN OKLAHOMA

and that they are not grown as much as in previous years: it simply means there is a broader interest being taken in horticulture and a more general interest in chrysanthemums and that everyone grows the type he can do the best with.

I will venture this assertion, which I believe is a safe one to make, and that is, that the number of people growing 'mums both indoors and in the garden has never been equalled in the past.



PARTON OF TRANSPORTERS OF THE STATE OF THE S

### TRADITIONS OF THE FATHERS.

Since the history of the human race has been recorded, and before, folk lore has been handed down from one generation to another, sometimes with additions thereto, sometimes with substractions therefrom, but always interesting to the student of the history of the development of man in his struggle for greater attain ments, in science, art, political freedom, and religious liberty.

There is but one phase of the subject which we have any desire to refer to at this time, namely, that which pertains to the art of gardening.

We shall not go further back than 1717 when greenhouses were first constructed for the cultivation of exotic plants. The greatest perfection in the art has been attained in England and Belgium; both countries characterized by a humide climate. It is from these lands across the sea where horticulture has been

been attained in England and Belgium; both countries characterized by a humide climate. It is from these lands across the sea where horticulture has been studied and practiced for three centuries that our most proficient gardeners come, and with them they bring as a rule the traditions of the fathers, and it is a marvel how tenaciously they cling to them, with little patience for the fellow who dares to do otherwise. The late Peter Henderson, a Scotchman of keen perceptions, was the first to break away from his early training, and establish a new order of things in the land of his adoption. That was on the Atlantic Coast two score years ago. And what a stir he made among the professionals who did as Dady did, or as the head gardener of some estate in the old country had taught them to do. He revolutionized the whole system of propagation of plants, which had been followed up to the time in

the horticultural world, and the publication of his books.

so simplified the art that it took the breath of his critics from them.

This same class of gardeners have been attracted to this part of the heritage of the children of men, and with them they have brought their traditions, though climate and country is radically different from the land of their nativity, and working conditions not at all ike those under which they learned. We shall point out some of the errors which they were taught, and fondly

cherish. When making cuttings of either soft or hard wooded plants it had to be at a node or joint, and the propagator who dares to do otherwise is a heretic. As a matter of fact the most successful propagator of the rose from out door grown wood never thinks of making a cutting at a joint. There is no necessity whatever for making Poinsettia cuttings at a joint. The hollow tube between the nodes will root as readily as those made in the old traditional way. Grape wood, cut to single eyes, with two inches below the eye will, if placed in clean sand and given a gentle bottom heat, root as readily as when two eyes are used, the lower eye close to the cut.

Then there is another tradition that these gardeners cling to with the tenacity of life: a blue grass turf. They must have a turf to be happy, and blue grass at that, no matter if the days are bright, and the atmosphere dry as the breath of an oven after the bread is baked. No matter how much water it takes or who pays the bill for supplying it, they must have a blue grass turf, in a desert land, or be disconsolate.

With all due respect for the fathers, may we never forget the fact that they lived up to the light they had, and while we revere their memories, we live in an age of progress, and in a land wholly different in every particular from that in which they lived and wrought.

We have heights to climb and depths to explore from a horizotteral manual view, it which the convergeven dreamed. -Pacific Garden.

## THE HORTICULTURAL SOCIETY OF NEW YORK.

Attention is again called to the Fall Exhibition of this society, which will be held at the American Museum of Natural History, November 4 to 7. Schedules are now being prepare I, and will soon be ready for distribution. That preparations may be made for the exhibition of bush plants, the premiums offered are given below:

### CHRYSANTHEMENS PLANTS. SPECIMEN BUSHES.

In not le -	t' an touteen in li pots		
Class No.		Fi st	Second.
1-1 Yellow		\$50 OO	835 00
\-2 White		50,00	35,00
\-3 Pink .		50,00	35,00
A-4 Any other color		50,00	35.00
A-4 Anemone or Single,	any color	30,00	15,00
Sweepstakes for finest ar	id best Bush Plant	Silver	C1177.
This is the Sou	dety's Cup valued at 81	00.00	

		Lu	not more than	 . four teen-inch	not.	
Λ-6	Yellow					\$15,00
	White				25.00	15,00
8-F.	Pink .				=25.00	15,00
A-9	Any of	her	color		25.00	15.00
			CDECIMEN	CTAVIDADING		

Not less than four feet in diameter, in not less than fourteeninch pots.

A-10 Any color \$20.09 \$15.00

GEORGE V. NASH, Secretary.

# The Phipps' Hall of Botany, Pittsburgh, Pa.

the School of Botany which, with the Phipps' Conservatory, Schenley Park, was presented by Henry Phipps to the city of Pittsburgh, was erected in the year 1991 at a cost of \$25,000.

The object in providing this institute was to stimulate interest and the love of plants and flowers among the pupils of the high schools of the city. To say that the object was realized is putting it very mildly, as the influence is very narked in the younger people

to accommodate 80 pupils in the nam hall, and 50 in the Lasement.

The Phipps' Hail of Potany is a most delightful place for carrying on work in the fine of Lotany. The hall is attractive, well lighted, arranged for laboratory and lecture work. Its equipment includes twenty compound microscopes, simple lenses, dissecting instruments, etc., and a fine reference library donated by Mr. Phipps. Ample material to carry out the work is furnished by

the Superintendent of Parks, George W. Burke, from the Phipps' Conservatory, comprising among other things the fol-

Horee mouths Date enteracties . terms constraints showing out, eraporal area in distance, stayer as the yeas, reans, corn, squash and radiobes in different stages or germination, and mosses in fruit.

Spira in nths Lulip. No issues. Crosus, one Hyacath Litts and dis soms, Cineraria, Isalea, Gemstra, Rhododendron, Tobacco, Apple, Cherry, Peach, Plum, Red-bud, Dandelion Iris

Fall months: Petunia, Snap-dragon, Hibiscus, Canna, Salvia, Columbine,



doubtrel whether there is another city familiar with plants and flowers and take so much interest in them, as do those of Pittsburgh. An evidence of this is the enormous crowds that visit servatory during the year, and the fine appearance of the grounds surrounding the private residences of the city in the spring and summer months; not the homes of the rich alone, but the comparatively poor as well beautify their homes by planting bulbs and flowering plants. The combined influence of the conservatory and school has been the means of beautifying the city, and has increased the florists' trade by creating a greater demand for plants and cut flowers.

The attendance at the school increased in a few years to over one thousand students a week during the school term; making it necessary to remodel the basement at a cost of \$3,000. Originally it was thought that one hall on the main floor would be large enough to accommodate all the students of the different High Schools of the city, using the basement for a class room only, but in course of time the population increased and one hall proved to be inadequate, so a committee was appointed to call on Mr. Phipps for further assistance. He generously paid the expense of the remodeling and now the Phipps' Hall of Botany, as it is called, has a seating capacity and desks



ARPANGO FOR THE TERRISON OF THE OPEN OF WEST

Milkweed, Cassia, Canna, Caster-oil, Locust, Maple, Allanthus and Jimson-weed pods, Chinese lantern, Bittersweet, Rose-lip, Snowberry, Osage Orange, Quince, and Haws fruit. Ash, Maple, Sycamore, Horse-chestnut. Ginke, Locust, Poplar, Tulip-tree, Cassia, Iris and Canna

The scope of the studies carried on in this school of botany embraces the germination of seeds; experiments to show the use of root, stem and leaf; the flowers and fertilization; cross-pollination; the fern life history; food storage in bulbs, etc.; fruit and its distribution; microscopic study of cells and wood structure; propagation by spore, seed, cuttings, grafts, bulbs; modification

of leaves for protection and food storage and many relative topics.

No city in America has such an opportunity for creating a love for plant life, and an intelligent interest in its conservation as has Pittsburgh, through the generos-

ity of one of its citizens.

Standing in close proximity to Phipps' Hall of Botany, and in front of the Phipps' Conservatory in Schenley Park, is the Robert Burns' Monument, which was accepted by Mayor Jos. C. Armstrong on October 27, 1914, on behalf of the city of Pittsburgh, as a gift from Andrew Carnegie, David M. Kirk, George Lauder, James H. Lockart, Thomas Morrison, Alexander R. Peacock, James Scott and the late Robert Pitcairn.

## PHYTOCHEMISTRY TO SOLVE OUR SOIL PROBLEMS.

By W. A. Hamor, Pennsylvania.

There has long been a certain antagonism of interest between agriculture and industry, both supporters of national welfare. The gulf which at one time threatened to separate them, would, no doubt, have become a barrier to cordial relations, owing to the more rapid progress of industry, had not chemistry, now the inteligence bureau of both, come between them as the mediator at a most opportune time. To quote one of the most eminent organic chemists, Herman Kolbe: "It seems marvelous and almost incredible to the uninitiated that, after a pursuit of agriculture for thousands of years, and after the establishment of the general belief that agriculture was being rationally carried out on the basis of a thousand years of experience, a chemist, who had never been a farmer, had never held the plough, never tilled the ground, should from his desk teach the agriculturists how to treat the soil, in order to impart to it constant productivity; and that only through Liebig's doctrine of the treatment of the soil and of the natural laws governing the cultivation of the ground, a truly rational system of agriculture has been inaugurated.

Agriculture has, in fact, now become applied phytochemistry, the chemistry of plants, and agricultural production ultimately rests upon the same chemical laws and operations which are employed in laboratories. It is therefore to the phytochemist that agriculturists—and florists and gardeners are members of that family must turn if they intend to be careful to further and increase the growth of plants, especially food plants, by supplying them with just the substances which the soil cannot offer to them in sufficient amount. The remark of the late Marquis of Salisbury is apropos in this connection: "If farmers would only manure their land with brains. . . there would be much less heard about agricultural depression." This utterance with that of Dean Swift—that "the man who makes two ears of corn or two blades of grass to grow, where only one grew before, is a great benefactor to his country"-will indeed always constitute the practical principles guiding the relation of chemistry

to agriculture.

The progress of agricultural research in the United States has been notable. The results of practical importance already attained have inspired the public with such confidence in the value of this kind of investigation that Congress and the State legislatures have been very liberal to the Federal Department of Agriculture and to the 63 experiment stations distributed throughout the country. Hand in hand with agricultural progress has been a constantly growing demand for well-trained workers in agricultural science, for the man-

agers of business enterprises requiring scientific knowledge and skill have awakened to a much clearer appreciation of the value of the services of such men.

Agricultural chemistry forms, of course, a basically prominent part of the instruction in agriculture at the various State colleges and universities, but, if we except the very superficial treatment of the subject as given in courses on pharamacognosy and materia medica at the schools of pharmacy, phytochemistry, the chemistry of plants in its broadest aspects, does not have a part in the curricula of our universities. The courses offered in agricultural chemistry at the State universities usually consist of instruction and practice in the *analysis* of soils, fertilizers, plants, feeding stuffs, and rain and drain waters; and little or no time is devoted to a study of the chemistry of the important



RÖBERT BURNS MONUMENT, SCHENLEY PARK, PITTSBURGH, PHIPP'S CONSERVATORY IN BACKGROUND.

substances occurring in plants, of the technology of plant products, and of the soil as a medium for plant life. This may in part be excused by the confused state of that vague mixture known as agricultural chemistry; but since the foundations of this subject have now been critically examined and the important evidence has been weighed, the time seems ripe for the introduction of phytochemistry into the courses of study of the higher institutions of learning.

At the University of Pittsburgh, a course in the chemistry of plant growth as governed by soil conditions and constituents, is offered for 1915-1916 in the School of Chemistry. This course, which is intended primarily for graduate students, will consist of lectures and laboratory field work, under the direction of an expert phytochemist, on the conditions governing plant growth. The object of this course is to afford an opportunity to the advanced student of chemistry to familiar-

ize himself with the very important work now being done on the various phases of this subject. A previous knowledge of agricultural chemistry is not a prerequisite and the actual working of the course will be arranged to suit the requirements of special groups of students. Through the courtesy of George W. Burke, Superintendent of Parks for the City of Pittsburgh, ample space and facilities for experimental work in the Phipps' Conservatory have been placed at the disposal of the University for instruction and research in phytochemistry.

At the present time the division of phytochemistry of the School of Chemistry in the University of Pittsburgh is conducting an investigation of the so-called catalytic and colloidal fertilizers, and the results promise to be of great practical importance; during the course of this inquiry, a thorough study is being made of the stimulating effect on plant growth of the rare and radio-active earths, various mineral salts, and organic compounds, and already very interesting conclusions have been made.\*

By pursuing a recommended course of training at the University of Pittsburg, young men may become fully equipped soil chemists, and probably no career is so full of possibilities as this one. Such chemists are qualified to carry out investigations of soil problems and to act as advisors to practical agriculturists. The School of Chemistry of the University of Pittsburgh is endeavoring, with its strong staff and unexcelled equipment, to supply this training.

"A full report of this research will appear in these columns later.

## Bird Protection and Its Scope

By Paul B. Riis, Illinois.

While the hanging out of nesting boxes and the proper feeding of birds are very necessary, there is other important work that must be done—work that does more than all else to induce birds to stay.

This work is difficult in its solution and consists in creating places of absolute safety by removing the bird enemies, of which the English sparrows, cats, chipmunks, flying squirrels, and sometimes squirrels are the principal ones.

The part played by chip-munks is not generally understood. Here in Rockford where birds have been attracted in the parks for several years we find the chip-munk appropriating the nesting boxes for store rooms, thus depriving the birds of a chance to use them. Their habit of sucking eggs also is conceded by some naturalists. The flying squirrel, so little in evidenece, not only shows a great partiality for nesting boxes, but also ruins these boxes for all time to come, for the species of birds they are intended for by gnawing the opening to such dimensions as to admit him comfortably. Little is known of his depredations with eggs. Fortunately his nocturnal habits compel him to seek repose in day time and it is a small matter to surprise him in his nap and straighten out matters. Squirrels fail to fill any particular place in nature. Their habit of building nests in hollow trees and limbs deprive birds of a safe nesting site, and close observations will soon convince you that they are not desirable. No excuse exists for their wanton destruction of nests, eggs, young and old birds. but possibly individuals are at fault more than the entire

After considerable investigation and actual experience, boxes made of lumber will be discontinued. The Baron von Berlepsch boxes cost but little more to construct; they are more durable and vandal proof and more in keeping with their natural surroundings. They offer natural nesting sites scientifically arranged and will be used by any bird that builds in boxes. Flat bottom board boxes are practically useless for wood-pecking birds. The von Berlepsch box overcomes all these objections. Waste material from cut-down green trees is always obtainable. However, it is about as cheap to purchase these boxes as it is to make them.

Time and money expended in providing for our feathered friends is a good investment. The work of treating trees for borers is more expensive than to provide for birds that are better able to do this. They work without compensation, intelligently and faithfully. No larvae or

egg masses escape their scrutiny. Many flat and round headed borers learn to their sorrow of the birds proficiency in searching them out. The brown creeper in his daily rounds goes up a tree, ably seconded by the downy, hairy and red-headed woodpeckers, finding everything in their line of vision. The nut-hatch goes down a tree finding everything in his line of vision. This admits of very thorough work and no trunk or limb is overlooked

The weed seed eating birds are equally proficient in their line of extermination. Tree sparrows (not the English sparrow) in Iowa alone are estimated by the government to eat annually 875 tons of weed seeds. There are many other varieties that do as much.

Wrens, robins, blue birds, cuckoos, thrushes, martins, flycatchers, quail, etc., daily eat such enormous quantities of caterpillars, moths, larvae and beetles as to be almost beyond comprehension. The high temperatures of the bird's body necessitates constant feeding, and fledglings will eat their own weight in food daily.

Nature herself has put the birds in the field to act as a check against the innumerable enemies of vegetation. Man has disturbed the balance by depriving birds of the natural nesting sites found in the forest and meadow now shorn bare. Personal efforts to supply the deficiency will help to restore this balance in a measure. The planting of berried shrubs and vines are within the scope of the park superintendent's work. The following varieties are arranged according to the order of their preference by birds: Blackberry, mulberry, Elderberry, black cherry, raspberry, blueberry, dogwood, pokeberry, red cedar, sumac, bayberry, wild grape, June berry, choke cherry, smilax, Virginia creeper, juniper, huckleberry, mountain ash, buckthorn, hackberry, viburnum, barberry, bitter-sweet, euonymus, and partridge berry.

We are now entering upon the third year of bird protection in the parks of Rockford Park district, and the results obtained are noticeable to the most casual observer. Fair Grounds Park, a tract of 24 acres, but eight blocks removed from the heart of the city, fairly teems with bird life. In former years a few robins were the only birds observed there. Last year, blue birds, cat birds, orioles, and even thrushes essayed to build their nests despite the great crowds of people that patronized this park at all times, and many winter birds are with us now. Once you enter upon the work of bird protection you will find it fascinating and a source of perpetual delight.

# Orchid Culture Is No Magic Art

By W. R. Fowkes, New Jersey.

The orchid family is not generally accorded the position is deserves in the floral kingdom, for, although large quantities are grown commercially, a great many gardeners shrink from their culture claiming that orchid growing does not properly come under the ordinary gardener's vocation.

The primary notion is that orchids are very expensive, require great heat, specially constructed houses for their successful culture and that a life-long study has to be given to them; in short—that they are in a class all by

themselves and require a specialist.

Some people also contend that an orchid only flowers once a year. So do many much commoner plants. Take, for instance, the chrysanthemum; it has to be grown for a year in order to get a beautiful show of flowers in the

Orchids can be had in bloom every day in the year, are not expensive to purha et in det, ere ver de sonable

requires great heat and a sweltering atmosphere in the plant house. No wonder these children of the free and open forests rebelled at such unnatural treatment. Some growers treat them in a careless manner and the plants struggle along, and if a flower appears it is a marvel and a wonder. They deserve good treatment and will repay any little attention paid to them. One of the main things in their culture is to keep them clean.

Orchids can be bought from the importers from one dollar upwards, or a few dollars a case, as they arrive from their native habitat and it is a most interesting and fascinating hobby to watch them grow and to look for their beautiful blossoms expanding from what appears to most people to be nothing more than miserable dried up sticks. Unbounded pleasure occasionally occurs from these imported plants when one of unusual variety turns out to be very valuable and a decided acquisition to one's collection.

STECIMEN PLANT OF CALIFFYA PERCIVALIANA

when their usefulness and beauty are taken into consideration. If a proper selection is made no one need despair of having orchids regularly. They are the aristocrats of the floral world and are unrivalled in splendor by any other species.

Many years ago orchids were in the hands of a few rich people in England, and were expensive because the collectors in the wild forests had not learned the proper methods of preparing the green leaved sappy bulbous plants in order to enable them to withstand the long journey of many weeks. The first cultivators also had a set idea, which is still adhered to by many, that the orchid

Orchids can be grown in any ordinary glass house with ferns and palms and some of them even with geraniums. In fact, there is not a greenhouse that some variety will not thrive

A few words about their culture. When and suspend from the permost, or place un-A point to remember is this, that too much heat, light and mois-

With proper treatment they will soon throw out a few roots, and when these roots begin to grow a little they must be sprayed overhead once daily, still keeping the plants in the shade. When the roots have

grown about one inch long they must be potted.

Most varieties will succeed in pans or 34-inch pots. Do not use one size larger than will contain the respective plant for they will be better off under potted. Compost for a mixed lot will be three-quarters peat and onecuarter sphagum moss, with a handful of shredded cow manure to eight parts of the mixture. Firm potting is a very important item, for an orchid loosely potted will not thrive but will dwindle away, due to the open nature of the compost,

A good collection of useful orchids that will give a succession of blooms are as follows:

Cattleyas, namely-

Illustrations from catalogue of Julius Rochrs Co

Trianae, cheens in January and February.
Percivaliana, blooms in February and March.
Mossiae, blooms in April.
Mendelli, blooms in A'ay.
Gaskelliana, blooms in June.
Gigas, blooms in July.
Jurea, blooms in July.
Dewiana, blooms in August.

Liderada bleoms in September.

Lacrata, Moems in October and November,

Laclia Anceps and the white variety albida flower January and February.

C , v or Splandidum, blooms in January and February.



, t1 - 1 - 1 - 1 - 1

. Trouble one is the diagram, bleoms in a Lebura March

Dendrebing matale, blooms in March and April 12 and 12 and 13 and 14 and 15 and

ers, the in the first of

vember.

Copyright in this second of the real September of the real September of the real Second o

MI orchids like the fresh air and require it. The phalactopsis like the most heat and must not suffer in summer for want of water and shade; but in winter they remain a light polition near the glass and no water or drip on their fleshy leaves.

I am growing all the above named varieties in one house along with begonias, bouvardias, gloxinias, and occasionally other subjects, and have flowers every day of the year.

The chief difficulty a beginner has to contend with is the time and manner of resting. Cattleyas require spraying overhead on bright days and when growing well a little weak cow manure is beneficial. When

they have completed their growth, with the exception of gaselliana, Labiata and Gigas, which flower as soon as growth is completed, they must be kept a little drier, and if possible, cooler. Cattleya Schroederae and Mossiae make their flowering growth in summer



1. 7.11 A. 1. 1. 2. 2. 1. 1. 7.21

and must be kept qui tand permitted to rest until March; when the visible buds in the sheath show the plant needs more water. Dendrebium nobile and Wardianem require abundance of water during growth. When finished they must be taken into a color late, which was ed to the sun to relt and ripen must when such cross is turned bads will be seen specifing out; they can then be taken into a term house at intervals to succeed in bloom. Dendre' into I haloenopsis makes growth and flower in the same house at intervals to succeed in bloom. Dendrobial, formorum giganteum is an evergreen orchid and will succeed better in full sunlight. A carnation house is a neighbor with the plant suspen halferm the roof.



FIZDROBHUM IZITZIBIPHTIM TAMISHAZUM

# Conifers—Their Usages, Plantings and Enemies

By Henry Kelly, Connecticut.

Conifers, taken collectively or individually, are as important, attractive and ornamental as any species of tree we have. To make up the collection named in this paper, nearly every country has paid tribute to the collector and we still have many other varieties that under favorable conditions do fairly well. There are many uses we can put them to, such as windbrakes, hedges, screens, backgrounds for gardens, or individual specimens for our lawns.

Nearly every specie requires different treatment and you may well believe that we have more to learn

about the formation and growth, or the habits of Conifers, than of any other

growing plant.

We know that they grow and do well in good soil; we also know that some species do equally well, if not better, in gravelly soil that will not produce anything else. We are inclined to think that the roots find what they require in the soil in the way of decaying rocks, and that the needles gather the nitrogen from the air and pass it down to

the roots thereby.

Darwin has said so sensitive are the ends of the roots in search of moisture that they must have brains; be this as it may, why do not our experimental stations discover, and tell us something about the organs of our trees-what part of the roots are to furnish the various materials needed for the proper development of the tree. If all we need to do is to keep the soil stirred and the tree will provide its own nourishment

water, but if it does not rain—and we mean by rain a good soaking down to the bottom of the rootsthen water once a week and when you do water do it liberally and give the needles a good spraying; after two days stir the ground to a depth of five or six inches, so that the air can get in its work and the roots will start growing. Too much watering will keep the needles green for a long time, but you sour the soil and instead of developing root growth they decay, and the tree dies. Do not spray the foliage in the hot sun.

We must be careful not to plant too deep and, as



AN EFFECTIVE FOUNDATION PLANTING OF EVERGREENS,



A PLANTING OF FIRS, JUNIPERS AND HEMLOCKS.

from the air, we should know it.

We find the best way to care for newly planted evergreens as follows: Keep the ground stirred twice a week. If we get good rains, say once a week, do not

Read Sefore Westchester & Familield Horticultural Society. Illustrations by D. Hill Nursery Co.

often as we can, we should plant in clumps, so that the trees will protect one another. If it could be done it would be an excellent plan to shade from the sun for a few days. Care must be taken not to let the sap harden in the roots, as it will be hard enough to get circulation started through the branches and needles under the most favorable conditions, for once sap turns to resin it will not circulate again. We sometimes get good results from pruning Conifers; this sounds like heresy, but is a fact. If they are to be pruned it should be done with a knife, and not with a box shears, and the work calls for good judgment. When we have a clump planting we should plant the strong, high growing, hardier varieties to the north and west; in this way we can make use of some of the handsome varieties that are not quite hardy, or do not stand our winds well.

There is no more effective planting than the following: Douglas Spruce, Austrian, White and Scotch Pine, Red Cedar and American Arbor Vitea, for the background coming down to Retinospora Plumosa Green and Aurea, Blue Spruce, Umbrella Pine, Swedish and Irish Juniper, Biota, Golden Arbor Vitea, Mugho and



A GROUP OF EVERGREENS FORM A PLREECT SCREEN AND ART BEAUTH UT THE YEAR ROUND

Japan Table Pine, Dwarf Yew, and prostrate Juniper. Plant among these some red Phlox and a few Othat Oragis. With the red Phlox and the yellow Oragis contrasting with the various shades of foliage of the evergreens, you will be perfectly satisfied with the result, and it is what can be called a happy planting.

To keep this good effect you must do some intelligent pruning, otherwise you will have an overgrown tangle. Do not be afraid to trim for the desired results. Often we find it an advantage to root prune, to regulate the growth and shape. We find that when an evergreen over 4 or 5 feet high has been transplanted and we have hot sunny weather, following a long period of cold rainy weather, we are apt to find what we call leaf scorch. The reason for this is that the tree was so recently moved that its root system had not become thoroughly established in the soil and

it is not able to take up moisture fast enough to enable the tree to adjust itself to the atmospheric and climatic changes. More moisture is given off by the leaves than could be supplied at this time, and the leaves collapse; this is the time the expert would be of use, providing he knew what was the matter. Keeping the soil stirred two or three feet around the tree is of great benefit.

An application of fertilizer rich in nitrogen at this time is of benefit when the trees turn yellow or sickly looking. A light sprinkling of nitrate of soda brings back the color to the needles.

We all want to plant trees as large as we can, and after they are planted we never do a thing for them. When a tree comes up naturally from a seed it is able to care for itself, the roots traveling in search of moisture and nourishment.



EVERGRIFNS ARE AUWAYS INTERESTING FUFY WHEN SNOW I ADDAY THEY MAKE THE WINTER SOLVE THE POLICE

An old gentleman once said that in his opinion many trees died of pneumonia, and why not? That is, they are not well enough established in the soil to stand our winters. If we encourage a vigorous growth late in the fall, the tree does not have time to ripen its wood to the end of the branches, and the tissues are sure to collapse in the late winter.

We find it a benefit to mulch newly planted evergreens, as it keeps the ground from baking and holds the moisture. Give them a heavier mulch in winter and put this on in the fall before the ground freezes

too deep.

If the frost should get below the root line it will be impossible for the root to provide moisture to the needles. When we get our dry winds in March, you will notice that this is the month that our Conifers and Rhededendrons go bad. This is one of the things that we are investigating, to ascertain if we can promote circulation at this time.

Nature provides a mulch of leaves or needles to care for the roots, but we are so sanitary and neat that this covering is not always allowed to accumulate, but must be ralled off and burned, and seldom burned

where the ashes will do good.

In selecting Conifers, the different forms of growth, different lengths of needles, share and size of capes. contrast of shades and color, of old and new growth, wet or dry, if the planting is wind swept or sun shrub, naist all be taken into consideration.

When selecting a place to plant Conifers we must run a light wire around some of the best specimens in winter, so that the snow will not break the branches.

Nearly every large place has one or two corners where a clump of pines or spruces could be planted surrounded by Thorn bush or wild Roses to keep ou: cats. It would encourage birds to build their nests if a few thousand clumps like this could be planted in the two counties, the birds would go a long ways to-

ward controlling the insect pests.

When we have a clump planting that we plant for immediate effect the should give a great deal of thought to the distance we plant apart. We should first plan a planting for permanency a good distance apart, then plant it. Fill with fillers to make a good effect. For this cheaper trees can be used and when they have grown together you take out the fillers. All you who base tried to thin out a planting know that you are compelled to move almost every tree before you are satisfied.

sideration, then give the tree a fair chance and you will be repaid for your trouble. We have now spent time enough on the Conifers collectively; we will endeavor to describe the varieties considered hardy and desirable in our locality.

There is some confusion about the Botanical names, but we crust this will soon be straightened out.

We see hear with the Alies of Pres, and semetices would not the Preus Prist somes Nordina Pres, one of the mandest Proximity and recalled but, seem dock on the upper the add and emath, spleaded contrast netween off and new growth, ultains n Leneraders Loant, hard to treesplant and makes little wrowth to Jun to meet reast; then more recorpast; has a Lore, tap root. Maan times the terminal bud becomes dormant, but after word a constant and makes a new leader. This tree will more a crease hundred feel high and should be given plant, of room to decelop its calcul shape. Now comes the Balsum Fir: its chief recommendation is the odor given off by the needles. Hi short in the trade in charges.

Concolor I'm is a splendid addition to the Firs, a rapid grower and will stand close to the salt water, bears long, blue, flat needles nardy and vigorous. Abies Augonica, Cork Bark Fir, a dense aroung Fre, hardy and a good looking tree. Abies Vobilis, Glanca, should be planted in poor soil.

We will now consider the Picies or Spruces. The white Spruce.

Pien Alba, a handsome tree when young, grows more open as it acts large, bears comes very nound, does well near sult water,

Excelsion, or the good, old Norway Spruce, the true Christmas tree. To one who has lived or traveled in New England this tree ndi appeal to. We can all remember the splendid specimens standent by the white jurn horse, when the snow lay deep on the cround as we harried to school,

We are compelled to admire their vigor, their strength and consume, such and have the north wind with their translable branches havening from their strong arms like limbs. True, then have their own troubles at the present time, but they will get

erer P. provided ne do our part

Then are allocked by the Spruce bud louse, a form of Chermese. This curses a rusty bunch on the small branches, but can be controlled by princer in September and the last of April. The Incer's, or Weeping Spines, is the neeping form of the Norman. ear he is old repearance can be used in some plantings.

Alteres Source, a tree with new test of green top and blue underweath. Duary Spines Pumilla, dense green and hardy. The Polita, or Tigertale Sprine, is a very desirable, strong grouer. The redles grow well around the twins, and the twee seems to be free cont pests, and is a good color.

Act where Preca Proper Concrete Service To seems for

tad then acre not introduced rears and; a stancty grower, strong and good form. Trees grown from sed come in many shades of

La cet the text blow the enex, be event; the et the efficiency high pieces charged for these trees. Care must be taken when the trees are nound to keep the leader straight, we can be considered to be a second of the form of the second was terrested to the second of the second of the header. the the tender growth. It semetimes seems that they delight to tion, constant the free to take on a rusty, don't-care appearance.

We will put the Doualass Spring in this class. This is without will the fastest growing overgreen ever into due d, said to grey 170 feet high. It has made shades of green and blue foliage, Comments of the Control of the Contr

Now come the many statees in cultivation, by wang with the Preus Scrobes, one mate it Winter Price. All have admired it is adjuncted free in a forest of thousands, or standing alone the

The is a vest of our, casp to transplant and under general con-ditions so a new to grow. Will flourish in most any kind of

See Alles to the Leaven of the With Place and its this can be detected by wat ling the leader.

inex pand that one Seest will have bee dieds of these small birers increase very fast. The satist vary to do is to cut off the wilted top below where you find the streak of resin, and barn them; then e ep a co e bigo chi to va e a e chano. Prous Lavico, or Austrian Pinc, a strong growing, dark, 85%

needle. This tree transplants well, and up to the present Um-Pass to the sult new branches strong enough to stand our high winds; the most some metrical Pine in cultivation. Grows from forty to sixty feet.

Piuns Sylvestris, Scotch Pine, with its hardy, twisted and bending yellow wood of the branches, its many shades of needles, the irregular branches, some georing up and some down; it is so ugls it makes it altractive. It is easy to transplant and bears cones no. a. Greas row party to seem to the leet.

Pinus Magho, Mountain Pine, one of the best and hardiest dwarf evergreens. Effective on banks among rocks on side-hills. When planted in large clumps a few ent-leafed Japan Maples and Magnolia Stellata make a good combination. These trees can be kept at any desired height by carefully pruning, not by taking a pair of box shears and chopping off the ends of the branches. but by reaching up and entting out shoots that are too high. In this wan your plant will grow dense.

The Macho is attached by saughy called a detallater. The larva

of this fly is about twice as large and looks like the currant worm, which will devour all the needles close to the stem. They do their feeding in July. Sometimes they are attacked with cankers on the stem, branches going out, one at a time, until the tree entirely goes. When we find a dead branch we should cut it off and burn it. Dig down at the root, and put in some new soil, and if found dry give a mulch and a good souking. Often when a branch becomes injured a fungus called Phoma Aricola attacks where the branch is injured. These trees will grow to fifteen or twenty feet, with a wide spread, and can be kept down to four feet.

Cembra, or Stone Pine, grows the same shape as a Lombardy Poplar. Good color and hardy. This pine, and some of the other pines as well, become inferted with a scale called Chronaspis Pinifoliae. Under each scale is a mass of reddish eggs which go through the winter on the needles and begin to hatch about the time the new growth starts in the spring. The young crawl about and settle on the newly formed needles from which they suck the sap. After they begin to feed a waxy scale forms over their bodies. If enough of them get on a tree, they will weaken it so that, should we have a long dry spell or a hard winter, it will not have vitality to stand the scale and dry weather.

Pinus Parviflora, Glauca Blue Pine, not long introduced, seems to be very hardy with interesting twisted needles and bears cones young.

Sciadopitys Verticillata, Japan I mbrella Pine, one of the most remarkable forms of growth known. A pyramidial tree, needles in whirls on the ends of the limbs. This is the reason it is called I mbrella Pine. Very hardy and very expensive; more desirable for a single tree than for a clump planting.

The Korensis Densiflora and Red Pine are good for all purposes and of a good color.

The Tanoshia, or Table Pine, bids fair to rival the Mugho. A green, dense grower and very hardy. Good for border and for porch planting; no collection complete without it.

Torrea Nuivefera, Monteray Nut Pine, a splendid tree, hardy with its very broad leaf.

Abies Candensis, native Hemlock. This is one of the best Conifers for all purposes that is in cultivation today. Easy to transplant, will grow in the open or in the shade, graceful in form of growth, looks well planted among rocks, along brooks, among other trees of any kind, and when alone makes a specimen to be proud of. Planted at the edge of a wood with some white and pink dog-wood or shadblow, is attractive. Grows to a great height and can be trimmed to a low hedge.

The Junipers are an interesting and hardy group. We will begin with our native Red Cedar, Juniperus Virginia, often used to get the same effect as the Italian Cyprus in formal gardens. A native of our hill and very hardy, it can be successfully transplanted at most any height, effective among White Birch and Sumac. Is attacked by a small borer that bores into the buds at the ends of the limbs; makes them look brown and dead. One way to control this is to give the tree plenty of water and nourishment, so as to create a good flow of sap. There is a flat-headed borer that attacks weak trees; do not let your trees become weak.

The other Junipers to be recommended are Schotti Japonica Aurea, Swedish and Irish. These should be planted in a protected location in this climate. The trailing of Prostrata varieties, Chinese procumbrence, Sabina, Canadensis, all hardy and very low growing. During dry summers they are attacked by red spiders, which give them a burned appearance.

The American Arbor Vitea is too well known to say much about. It is hardy, useful and ornamental. Good for hedges, grows when planted alone the shape of our native Cedars, a good color. The Siberian is a dense, low-growing, broad, bush-like growth, very hardy. The globe does not grow more than one or two feet. Heavy, very light green, slow grower. George Peabody, grown like the American Arbor Vitea, bright yellow, all free from pests.

The Cedrus Atlantica Glauca, an attractive tree but in color, irregular in form of growth, needles short, much admired and one of the hardiest trees we have.

Now comes the Retinospora; this type of evergreen is attractive, especially while young; bears shearing to keep them to the desired height. Have not been introduced long enough to say how they will look at from one to two hundred years from now.

The Plumosa, green and yellow, are hardy, lift good and stand transplanting well; grows to a good sized tree with care.

The Pissifera, a green and yellow, and Fillifera, green and yellow, are hardy and grow to a good height. The Obtusa, green and yellow, are dwarf, good for garden borders or for pots.

The Spuarossa, when growing well, is most admired of the Retinosporas, but in the spring or planted too close to other trees looks rather sad.

The Biota, or Chinese Arbor Vitca, we cannot leave out, though not the hardiest we have in cultivation. Their dense, knife-like

foliage in various shades of green, with their different shape buds, make them attractive and useful. The Biota Elegantissima, when it starts to grow in the spring, is a light golden green, changing from month to month until in winter it turns to a beautiful bronze.

All the trees named in this paper are hardy under most all conditions. Evergreens cannot stand extremely wet locations. Keep the ground stirred around your trees; if they require water give it to them; if planted in a bleak, wind-swept place, protect for two or three winters, until they get a good root growth.

Do not get provoked at a tree because it may look sick, the chances are that it has been neglected.

## A DOG FANCIER AND HORTICULTURIST.

Judge J. Bayard Kirkpatrick, owner of the famous Closburn Farm and Kennels, at West Caldwell, N. J., is a great fancier of the Scottish Deer Hounds. He is seen in the accompanying illustration standing in the ring, at one of the recent dog shows, waiting to have his famous stud dog, "Roderick of Closburn," judged.

Judge Kirkpatrick has imported a great many Scottish Deer Hounds and is greatly interested in their breeding and training. This is purely a pleasure with him and he regards these dogs as the most affectionate animals in dogdom. At the Westminister Kennel Club Show at Madison Square Garden, New York, this year one of the features were the famous Scottish Deer Hounds exhibited from the Closburn Kennels.

While a great dog fancier, Judge Kirkpatrick is also an enthusiastic horticulturist and is at the present time developing his estate at West Caldwell. On it are to be found some of the most modern farm buildings in this section of the country. The construction of a sunken garden is now contemplated, which, when completed, is expected to be one of the most attractive in the state of New Jersey.



CHAMPION RODURICK OF CLOSHRURY, WINNING HIS FIRST AMERICAN CHAMPIONSHIP, WITH HIS JUDGE.

### THE HISTORY OF THE KEW ROCK GARDEN.

Although the rock garden at Kew, so long the delight of Londoners, was constructed in its present shape more than thirty years ago, only during the last winter was it completed according to Sir Joseph Hooker's original plan. Sir Joseph Hooker was not only a great botanist, but was also widely famed for his artistic skill. His sketches made in the Himalayas during his classical journeys in India have been the admiration of all subsequent students of botanical painting. When, therefore, he succeeded his father, Sir William, as second director of the royal botanical gardens, the supervision of the artistic development of the grounds was one of his chief delights. And when a collection of two and a half thousand alpine plants was presented to the establishment by one Joad of Wimbledon in 1882, and it became immediately necessary to construct a large rock garden to receive them, the planning of this new feature was a work entirely after the heart of Sir Joseph and he set to work upon it with his accustomed energy and enthusiasm. He took as his model not any artificial rock garden that he knew, but his recollection of the shape and summer garb of some well loved and well known alpine valley in the Pyrenees, where the winter torrent has given place to a shallow watercourse and the banks of a succession of tiny precipices and bays all richly decked with the floral gems that are characteristic of those mountains.

The stream was represented by a flat winding pathway, the banks by rocks of various kinds, arranged in bold masses, leaving between them sheltered nooks and miniature side valleys. Broader bays were made to accommodate marshes and other special features for flowers of fastidious tastes. In one place a small cascade falls from the upper rocks and gives rise to a little stream, which wanders through the meadow at its foot. The flowers of this meadow are chosen from the meadows of our temperate regions and require the damp soil of their natural habitats. To maintain the water level near enough to the plant roots the whole soil of the bay is enclosed underneath and at the sides with an impervious clay lining, and how satisfactorily this does its duty can be seen from the luxuriance of the meadow vegetation.

The actual rock work is made of large blocks of various kinds of stone so arranged as to give the impression of stratified rocks weathered by natural agencies. Three English localities famous for their wild flowers were drawn upon for the stone. The neighborhood of Bath furnished oolite, a rough granular rock easily accommodated to the uses of rockeries. Water-worn limestone blocks were imported from Cheddar cliffs, a famous rocky glen in the Mendip hills and the home of the Cheddar pink and many other rare and beautiful flowers. While for the saxifrage collection was obtained a quantity of tufa from Darley dale in the Peak district of Derbyshire.

But the rocks originally provided were not sufficient to build up the 300 yards or so of banks for more than two-thirds of their length and the remainder had to be made of earth heaped over large tree stumps to consolidate the whole. These stumps, though a makeshift, have made a fine humus for the generations of valuable plants that have decked this end of the rock garden. But the general effect of the rockery was marred by their use and the uniformity now obtained by the substitution of rocks in their place completes the beautiful scheme intended by Sir Joseph Hooker.

—Christian Science Monitor.

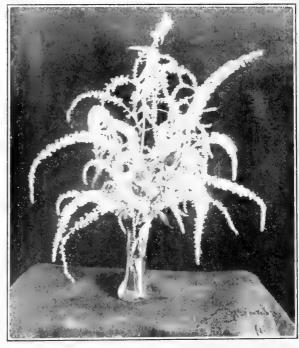
### RED-STEMMED DOGWOOD.

Those who have the planting of grounds are often called on to set out shrubs or trees which in some way or other will present something pleasing to behold in winter, writes Jos. Meehan in Florists' Exchange. In evergreens it may be foliage; in trees, some peculiarity of color in the bark, or those of a weeping character; in shrubs, it is chiefly in the color of the bark. We would mention now as one of the best of shrubs for colored bark the red-stemmed Dogwood, Cornus stolonifera. sometimes called C. alba, a native shrub, though a European one, more often called C. alba, is of much the same character, while by some considered superior to our native sort. But treating both as one, they may be considered as a small shrub, well suited for planting in groups for color effect in winter, and often so planted. Corresponding in character with many other shrubs and trees, such as some of the Willows, the color of the bark of this red-stemmed Dogwood is at its best in winter. As soon as the leaves are shed and cold sets in, the red color is apparent, and it heightens as the winter advances. When spring commences the red vanishes, and the usual green of summer starts in.

The best way to insure a mass of color is to prune the bushes severely in spring, which will give numerous strong shoots by fall.

## THE WHITE BUDDLEIA.

Buddleia, as a genus of almost hardy shrubs, furnishes three very distinct species for garden decoration. These are B. globosa, with round, ball-like, orange colored blooms; B. variabilis, with purplishheliotrope elongated spikes; and thirdly, the one here illustrated, B. asiatica, with (nearly) white spikes.



BUDDLEIA ASIATICA—RECENTLY INTRODUCED GREENHOUSE SHRUB THAT GROWS MANY FEET IN A SEASON AND FLOWERS IN WINTER.

Buddleia asiatica came into our greenhouses from the wilds of western China a few years ago and has soon become a favorite. As a climber for the conservatory or greenhouse, either in a large pot or tub, or planted out in a border—which is best; and trained to a pillar, or upon wires under the roof, it is a commendable plant.

## Miniature Gardens for Decorations

Many prominent florists in New York and other cities are displaying miniature Japanese gardens, and bowl gardens in their windows, and they appear not

IRIS BOWL GARDEN

only to attract passersby to the windows, but to sell quite freely. Both children and grown-ups are interested in them, and they are used very largely in table decorations.

One possessing an ordinary decorative taste may, with the large assortment of auxiliaries available make up some pleasing garden combinations, and enjoy the work. Either water or dry landscape effects are possible, and the gardens maintain

few days growth is produced and the pieces may be used to represent islands, peninsulars and other foundations, upon which such figures as pagodas, shrines, bridges, birds and the like may be disposed in a picturesque way. When a grass effect is desired, grass seed may be used in connection with the Horse Radish. Another quick effect is obtained through the use of Carrot tops. A handsome bow1 effect was seen recently in which a



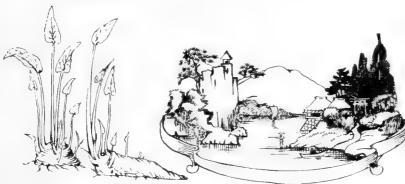
MINIATURE TRAY GARDIN

Carrot top had been used, and very many who saw it could not recognize the vegetable source.

We present in our illustrations some simple designs easily worked out. The various accessories used are supplied in sizes to insure a correct perspective relation to the scenes arranged, and the subjects are almost innumerable.

The bowls are generally used for sprays or single flower effects, and are very useful for an inexpensive display. Various forms of flower holders of glass or earthenware are used to hold the flowers in a dish, the holders in crab, frog, duck and other designs.

Illustrations loaned by the Florists' Trade Journal.



ISLAND FORMED FROM HORSE RADISH.

TRAY GARDEN.

a fresh appearance for sometime.

Besides the various accessories to be obtained from the importer, there is much material to be found at home, and it may be used to advantage. For instance, ordinary garden Horse Radish may be cut in pieces of a size required, put in water, and in the course of a



MINIATURE GARDEN ACCESSORIES.



# Vegetables and Flowers from the Cold Frames

By Duncan McIntyre, New York.

To the enthusiastic amateur gardener nothing gives more pleasure than the growing of plants and vegetables in hotbeds or coldframes.

In England I have seen very excellent specimens of flowering plants grown for exhibition in deep coldframes by amateurs and apart from the pleasure side of using coldframes for plant growing, they are also profitable to amateurs in forwarding vegetables to lengthen their season of growth for exhibition purposes, and for the raising of annual flowering plants.

To the professional private gardener, coldframes

and hotbeds are indispensible.

Hotbeds may be made either above ground or below ground, but I prefer for early growing a pit about handle will produce heads for cutting by May 1, and I find the varieties Hittingers Belmont and Commodore Nutt, with May King for succession, to be excellent varieties for this purpose.

Cauliflower is another vegetable very much appreciated when home grown early in spring and no vegetable responds as readily to good culture under glass. Sow seeds thinly about the end of January, and grow along without a check for to cut nice heads about April 15 to May 1. The varieties First Crop and Purity are the best I know of for hotbed culture, with Snowball for succession.

Carrots are another vegetable which responds to hotbed culture, if forcing varieties such as Early Short

> Horn and Paris Forcing are used, and are much valued in spring. Sow in lines about six inches apart, and if sown thinly, this crop needs no thinning until the carrots are large enough to

> Beet tops are a good substitute for spinach in early spring, and by sowing seed about March 1 in six weeks they are ready to use; sow the seed as directed for carrots.

> Radishes may be sown at intervals and if space is limited this crop may be sown between the lines of transplanted lettuce, and used before the lettuce comes to maturity.

Cabbage is a vegetable not often given space in the hotbed, but where quantities and a variety of vege-tables is needed in April

grown successfully by sowing and transplanting as directed for cauliflower. The varieties Imperial and



AN GO INTO THIS TRAME MATTER IN EARNEST AND USE THEM JUST LIKE YOU WOULD A GREENHOUSE TO GROW ALL KINDS OF OUT OF SCASON A EGETABLES AND FLOWERS

four feet deep with concrete sides and bottoms, and provided with bottom drains, with provisions for sash

Material for making hotbeds are generally plentiful on private estates, dry leaves and horse stable manure in equal parts is all that is needed, and turned every three or four days to prevent too rapid fermentation and to thoroughly mix. After turning several times and the excess of ammonia has escaped it is ready to put in the frame, when the material should be well tramped down to prevent the loss of heat too rapidly.

Generally after placing the material in the frames, it becomes quite hot, but a thermometer placed in the

material serves as a guide.

When the material shows a temperature of 90 degrees to 95 degrees put about six inches of soil on top and rake finely on top, and close the frames for the whole to settle.

In a day or two the soil will be warm and ready for

seed sowing.

Lettuce is one of the most looked for early articles of diet from the garden, and by sowing seed about the middle of February on a warm hotbed prepared as described and transplanted when large enough to



THE SOUTH SIDE OF A BOARD FENCE IS AN IDEAL PLACE FOR TOMATOES.

Early Market are the best varieties for this purpose. Apart from the growing of vegetables to maturity many seeds of vegetables which need a long season of growth to perfect may be forwarded by means of

the hotbed.

Onions and leeks are two of the most important; sow the seeds of these in flats and transplant to other flats and grow along, giving ventilation whenever possible until about April 15, when they may be transplanted to the open ground.

Tomatoes, celery and eggplant may be located in the

same manner.

Flowers also are needed for early cutting from the garden, many of these may be started in the hotbed, and when weather conditions allow may be transferred to the coldframes and from there to the open ground.

Asters, salpiglossis and antirrhium are among the most suitable for this purpose, although others do equally well treated in the same manner, according to

requirements.

Hotbeds are more essential to the professional gardener than the amateur, the latter can wait the developments of the season, but it is the duty of the professional gardener to provide as early in the season as



FOR DAFFODH'S OR NARCISSUS, TRY SOME OF THESE LITTLE PLANT FRAMES OVER THEM AND FORCE THEM IN BLOOM TWO WEEKS AHEAD OF THE USUAL TIME.

possible what vegetables and salads he can. He is not supplying food for remote families of whom he knows nothing, but for one particular family with whom his

destinies are closely bound up. So from the little extra work caused and the good results produced it is worth a trial on all estates which have the material for hotbed making at their disposal, and nothing is more appreciated in early spring by all private families than vegetables and salads grown in their own gardens.

Perhaps there is some little confusion in the terms "cold frames" and "hot beds." Cold frames are those warmed by the sun only; hot beds by an under bed of manure giving heat by its fermentation. They are both a sort of small greenhouse that will yield bountiful returns every month in the year. Don't hold the idea of their being limited to growing lettuce, radishes or getting a month or so's start of your neighbor, for these are a small. very small phase of their possibilities. Every grower has particular views on soils, fertilizers, propagating and growing, views that are the results of experience. So there is no use trying to give



IN NEWPORT, R. I. THE WINTERS ARE LONG AND THE SPRINGS LATE. WITHOUT A GREENHOUSE OR COLD FRAMES THE GARDENS ARE APT TO BE VERY LATE. THIS VIEW SHOWS A GLIMPSE OF A GARDEN WITH MELON BOXES IN USE.

hard and fast rules for managing frames any more than for other plantings.

Ventilation is a phase of the hot bed or cold frame growing that should receive serious attention. Too much of it will chill your plants. Too little of it will make them soft. In cold weather, raise the sash slightly during mid-day while the sun is out. In warmer weather the sash can be elevated or slid down from the frame. Dur-

ing extreme cold weather the frames require some protection by covering of mats to go over the glass.

Illustrations by Lord & Burnham Co.



THESE FRAMES ARE ALL DEVOTED TO VIOLETS AND THE FAMILY IS NEVER WITHOUT THEM FROM OCTOBER TO APRIL. THE POSITION OF THESE FRAMES, EACING SOLITH, WITH A PROTECTING FENCE AND SHRUBBERY AT THE NORTH, IS EXCELLENT.

THE

## GARDENERS' CHRONICLE

OF AMERICA.

Published by

## THE CHRONICLE PRESS, Inc.

· Office of Publication

286 FIFTH AVE., NEW YORK. MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Foreign, \$2.00

Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

:: ::

::

Published on the 15th of each month. Advertising forms close on the 10th preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

### OFFICIAL ORGAN OF

#### ASSOCIATION OF GARDENERS NATIONAL

Vice-President, President. Treasurer, J. W. EVERITT, Glen Cove, N. Y. W. S. RENNIE, Ross. Cal. JAMES STUART, Mamaroneck, N. Y. Secretary, MARTIN C. EBEL, Madison, N. J.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; Wm. Turner, Mcndham, N. J.; Geo. W. Hess, Washington, D. C. John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.
To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.
To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass. Lenox, Mass

## AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President,
GUSTAVE X AMRHYN,
New Haven, Conn.

Secretary-Treasurer, ROLAND W. COTTERILL, Seattle, Wash.

JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

Vice-Presidents, CARL W. FOHN, JOHN HENDERSC Colorado Springs, Colo. Montreal, Canada. JOHN HENDERSON, CHARLES HAIBLE, Newburgh, N. Y. J. H. PROST, Chicago, Ill.

Vol. XIX.

MARCH, 1915.

No. 3.

## GARDEN CLUB DAY AT THE FLOWER SHOW.

The committee in charge of the New York Spring Flower Show has set Friday, March 19, as Garden Club day. This day was a popular one at the show last year and the year previous. Several large delegations of garden club members came from neighboring cities and not a few of them came from distant points. Some of the out of town clubs have already signified their intention of having their members gather at the show on Garden Club Day and everything indicates that the garden clubs will take even a greater interest in the 1915 show than they did in the previous years' shows.

## ORCHID CULTURE IS NO MAGIC ART.

(Continued from page 119.)

Dendrobium Jamesianum is another evergreen which likes a little shade and the cool end of a house and plenty of water.

Odontoglossums are a noble race of cool house or-

chids that succeed better in England than in our climate with the exception of several beautiful forms, namely, O. grande (Baby Orchid) and O. Insleayi, both magnificent large flowers.

Calanthes are another type of orchid that can be grown in a cucumber or palm house in summer, though a little different culture, than before described is necessary. Procure bulbs of last season's growth, stand them perpendicular in a flat with leaf mold or peat dust until roots form. Then pot into 5-inch pots, half full of crocks for drainage, in a mixture of coarse loam three parts, one part peat and one part sand or charcoal dust. Give plenty of water during growth, also shade. When the bulb is completed give it absolute rest, when, being deciduous, it casts its leaves and its beautiful flower spikes appear. Then commence to water again.

Much more could be written about these beautiful plants, but my notes are simply based on an ordinary place where a mixed collection of plants are grown and where no specialist or special houses are employed.

One of the important points to bear in mind is to adhere to the dry side generally, for orchids will invariably succeed better than when saturated continually. Sprinkle a little soot and lime around occasionally, being careful when in bloom; it being advisable to place the ones in flower in a part of the bench by themselves.

### OH. EVER'THING'S A-GOIN'.

When ever'thing's a-goin' like she's got a-goin', now— The maple sap a-drippin', and the buds on ever' bough A-sort o' reachin' up'ards all a-trimblin,' ever' one, Like 'bout a million brownie fists a-shakin' at the sun, The children want their shoes off 'fore their breakfast, and the spring

Is here so good and plenty that the old hen has to sing! When things is goin' this a-way, w'y, that's the sign, vou know,

That ever'thing's a-goin' like we like to see her go!

Oh, ever'thing's a-goin' like we like to see her go! Old winter's up and dusted, with his dratted frost and snow.

The ice is out o' the crick ag'in, the freeze is out the ground,

And you'll see faces thawin', too, ef you'll jes' look around-

The bluebird landin' home ag'in, and glad to git the chance,

'Cause here's where he belongs at; that's a settled circumstance.

And him and Mr. Robin now's a-chunin' fer the show. Oh, ever'thing's a-goin' like we like to see her go!

The sun ain't jes' p'tendin' now—the ba'm is in the breeze-

The trees 'll soon be green as grass, and grass as green as trees.

The buds is all jes' eechin', and the dogwood down the

Is bound to bust out laughin' 'fore another week is done.

The bees is wakin', gapy-like, and rumblin' fer their buzz,

A-thinkin', ever wakefuler, of other days that wuz— When all the land was orchard blooms and clover, don't you know.

Oh, ever'thing's a-going like we like to see her go! -James Whitcomb Riley. JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

### ASSOCIATION NOTES.

An executive meeting of the trustees and directors of the association will be held in New York City on Friday, March 19. Arrangements for the summer meeting to be held in San Francisco, Cal., in August next will be consummated.

A meeting of the Essay Committee will be held in New York during the flower show to complete the details of President Everitt's prize article competition, for which he has offered \$100 in gold. Owing to the distance apart that the members of the committee live from each other, it has been impossible so far to come together.

The Co-operative Committee will report the results of its efforts to establish an educational course for the benefit of the members of the association at the meeting of the Executive Board. It will also report on several other plans to promote greater co-operation between the national and local societies.

From time to time reports appear in the daily press and in other publications of intemperate utterances made against the gardening profession or of those who follow its calling. In order to refute misstatements or reflections appearing against the profession, the Co-operative Committee requests that whenever anything is published detrimental to the profession the observer mail a marked copy of the publication in which it appears to the secretary, so that the gardeners' interests may be properly defended through their national association against unjustified published criticisms.

The American Association of Park Superintendents has extended an invitation to the gardeners' national association to have it join the park superintendents in their trip to San Francisco. It is planned to leave New York August 5, stopping a day at Chicago, a day at Minneapolis, a day at Glacier Park (Montana), one day each at Spokane, Tacoma, Seattle and Portland, arriving at San Francisco on August 16; leaving on the 22d for Los Angeles and San Diego and leaving there on the 26th for a day's stop over at Salt Lake City, Colorado Springs and St. Louis, and return to New York on September 5. Railroad fare, including Pullman berth, will be approximately \$155. At the different cities visited the Park Boards will entertain the party so that it may be relied on that the sight seeing arrangements at the different stop overs will be of the best. Fuller details of the trip will be published in the next issue.

An invitation has been received from the Menlo Park Horticultural Society, California, to have the gardeners attending the summer meeting set a day aside to visit Menlo Park in a body as the guests of the local society. At the last meeting of that society the secretary was instructed to get in touch with the officials of the N.A.G. to learn how many members will make the trip, so that proper arrangements can be made to tender the Eastern brothers a royal good time.

Lans P. Janson, St. Louis, Mo., chairman of the Committee on the Preservation of the Native Birds, trusts to have a report to submit shortly on the work planned by his committee and which should be of interest to every member of the association.

## AMONG THE GARDENERS

Frank C. Drews recently resigned his position as superintendent of the Essex County Country Club, Orange, N. J., to accept a position of superintendent on the estate of Charles R. Huntley, Lancaster, N. Y. Mr. Drews assumed his new duties on the first of the month.

J. Knight succeeds R. Stobo, who recently resigned his position as superintendent of the H. L. Hoyt estate, Great Neck, N. Y.

William Brown, until recently gardener on the John D. Rockefeller estate, Pocantico Hills, N. Y., has accepted a position as superintendent on the estate of C. W. McAlpin, Morris Plains, N. I.

George McKenna, formerly superintendent on the J. J. Day estate, Summit, N. J., sailed on March 1 for Havana, Cuba, to accept the superintendency of a plantation on that island.

N. Ireland has accepted the position of superintendent on the H. R. Winthrop estate, Woodbury, L. I.

Theodore J. Schmid has resigned his position as superintendent on the Charles A. Otis estate, near Cleveland, Ohio, where he was in charge for a number of years, to engage in landscape gardening on his own account. He has opened offices in the above named city and in Willoughby, Ohio.

John B. Sullivan, gardener for Charles F. Hoffman, Newport, R. L., was recently appointed postmaster of that city. Mr. Sullivan has been active in politics for a number of years and has for some time been a member of the State legislature.

Samuel Matson has accepted the position of head gardener on the estate of Mrs. Alexander S. Clark, Newport, R. I.

Charles D. Stark recently resigned his position as gardener to T. Suffern Tailor, Newport, R. I., after being in charge of the estate for nearly twenty-eight years.

William N. Craig, of Brookline, Mass., delivered a lecture before the Rhode Island Horticultural Society in the Public Library, Providence, R. I., recently, his subject being "The Home Vegetable Garden"

James Scott, who has been superintendent on the estate of Mrs. Charles T. Hayden, Magnolia, Mass., for a quarter of a century, has resigned that position to accept a similar one on the estate of Mrs. C. A. Sinclair, West Gloncester, Mass.

Walter Boggis, for the past three years engaged in the gardening department on the Twombly estate, Madison, N. J., under Robert Tyson, superintendent, has secured the position of head gardener on the estate of Paul Moore, Convent, N. J., succeeding Edward Davies.

Duncan MacIntyre, also of the gardening department of the Twombly estate, Madison, N. J., has accepted the position of super-intendent on the Ernest Iselin estate, New Rochelle, N. Y.

## Of Interest to Estate Owners

The National Association of Gardeners maintains a Service Bureau which is at the disposal of all who may require the services of efficient surdeners in their various capacities.

The association seeks the co-operation of estate owners in its efforts to \*secure opportunities for those engaged in the profession of gardening who are seeking to advance themselves. It makes no charge for services rendered. It endeavors to supply men qualified to assume the responsibilities the position may call for.

Make your requirements known to

M. C. EBEL, Sec'y, National Association of Gardeners, Madison, N. J.

#### AMERICAN ASSOCIATION PARK **SUPERINTENDENTS**

OFFICIAL COMMUNICATIONS.

G. X. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

### ASSOCIATION NOTES.

A conference to discuss the 1915 convention plans was called by President Amryhn at New York City, the meeting being held at the office of Park Commissioner Cabot Ward on Saturday, February 20, with the following present:

Amrylin, of New Haven; Fred C. Green, of Provi-Gustave X. dence; James Shea and Wm. J. Stewart, of Boston; Wm. H. Coldwell and Chas, Haible, of Newburgh; M. C. Ebel, of Madison, and Hermann W. Merkel, George V. Nash, Wm. J. Zartman, Frank L. Hamilton, John F. Walsh, John H. Beatty, Edward A. Miller, Wm. C. Grassau and G. H. Burgevin, of New York.

As but three members of the Executive Board were present, the conference was informal, but its action will probably be confirmed by the other members of the board,

After a full discussion regarding plans for the August convention at San Francisco, the following was agreed upon:

That it was advisable that our convention be held the same week as the convention of the Society of American Florists, which has fixed its dates as August 17 to 20.

That a full one-day business session be held on Wednesday. August 18, with morning, afternoon and evening business sessions. The Executive Board can hold its meeting the evening before and any programme of tours of inspection or social features to follow on the 19th and 20th

That an effort be made to have delegates to the convention travel together by special cars or train, and an itinerary submitted by M. C. Ebel was approved.

This itinerary calls for a general assembling at Chicago on August 7, then proceeding by special cars or train via the Northern route and Pacific Northwest with stop overs as follows: One day and evening at Minneapolis; an afternoon at Glacier Park; a day and evening at Spokane; a day and evening at Seattle, and a side trip to Tacoma; a day at Portland, arriving at San Francisco on the evening of the 16th; leaving San Francisco on the 22d for Los Angeles, where San Diego is a short side trip.

The return route to be via Salt Lake City, Colorado Springs, Denver, St. Louis, etc. The return trip will most likely be made in groups, but it is hoped that the westward trip can be as a special party.

Full details of itinerary will be sent to all members by the secretary at a later date.

The cost of proposed itinerary, transportation and sleeper charges from New York will be approximately \$155. The Park Boards of stop over cities will entertain the party to advantage.

Mr. Coldwell, of the Coldwell Lawn Mower Company, invited the association to make their building on the Exposition grounds its headquarters, which offer was accepted.

## PARK DEPARTMENT PERSONALS

Our fellow member, Richard Power, of Halifax, N. S., recently completed forty-three years of service in charge of the Public Cardens of Halifax, and the following extract from a Halifax paper best describes a most unusual ceremony in connection therewith:

"Superintendent Power, of the Public Gardens, was presented with a substantial check and illuminated address in the City Council Chamber Wednesday by Mayor Bligh on behalf of the citizens of Halifax. Many prominent people of the city were

present to felicitate Mr. Power on this happy occasion.
"In making the presentation, Mayor Bligh said that the Public Gardens were famous all over America. He called on Mr. W. E. Schwartz, chairman of the fund; the Lieutenant-Governor, Archdeacon Armitage and Dr. Forrest. They all spoke in the highest terms of the Public Gardens and of Mr. Power.

"In a few brief words Superintendent Power thanked the executive and the people of Halifax for the honor conferred on him. He said that it was gratifying to know that his efforts to please the people had met with success. Mr. Power said it had always been a pleasure to him to beautify the Gardens. Closing, he said: 'I thank you all and wish you the season's greetings.'

The amount of the check was \$1,281.17.

The illuminated address was as follows:

To Richard Power, Esquire.

Sir: A number of citizens of Halifax and a few other friends take this opportunity of expressing their appreciation of the great work you have accomplished as superintendent of our Public Gardens.

You have been in charge almost from the beginning, and we can offer no higher praise than simply to point to the marvelous beauty of this far-famed spot. We believe that you may justly and without boasting say like the great architect of St. Paul's Cathedral: "Si monumentum requiris circumspice."

The name of the Halifax Gardens has gone far and wide. We hear of them everywhere. Nothing more beautiful can be found in any city in America. However faithfully the commissioners may have done their work, they would be the first to acknowledge that the credit of their great success is justly due to you. When we remember the limited resources that have been at your command every one is amazed at the work that has been accomplished.

Your unfailing kindness and thoughtful consideration have added greatly to the pleasure of all visiting this beautiful spot, and have made you beloved by old and young alike.

Please accept this accompanying gift as a small token of our

We pray that your life may long be spared, and we feel that while you live the Halifax Public Gardens will maintain the position they have so long held among the beautiful public places on the continent.

Through a bequest in the will of Collis P. Huntington, the city of San Francisco is to secure for use as a children's playground a tract of ground in the fashionable Nob Hill district, valued at \$275,000,

Nicholas Byhower, who will be remembered by those who were at the Kansas City convention on account of the beautiful photographic display of Salt Lake City which he exhibited, has retired as superintendent of the parks of that city. Mr. Byhower owned an interest in a nursery, and when the park department secured some stock from this nursery, political enemies got in their work and brought about his retirement.

This is a striking illustration of how a man's motives may be misjudged. Mr. Byhower had built up the Salt Lake City park system from its infancy, and it is unfortunate that he should be the victim of political enemies.

The 45th Annual Report of the West Chicago Park Commissioners just out is the most attractive publication ever published by any of the park administration agencies of that city.

In addition to a wealth of pictures illustrating buildings equipment and development work, Superintendent A. C. Schrader has devoted thirteen pages to a detailed report on the playground facilities, plan of operation, activities conducted, employees and general descriptive detail, which should prove invaluable to other cities wrestling with this problem.

A review of this kind unfortunately seldom appears, and if you missed it, better look it up. Superintendent Schrader is to be congratulated on having incorporated in his report such valuable detail.

### RECOMMENDATIONS FOR LOUISVILLE'S PARKS.

John C. Olmstead, of Brookline, Mass., landscape artist for the Louisville Board of Park Commissioners, was recently in the city, where he made a ctudy of the parks and parkways, after which he made a report to the board. Mr. Olmstead called particular attention to the necessity of planting trees. Other recommendations were that Louisville should have a city planning commission; that park scenery should not be marred by erection of public buildings in parks; that playgrounds should not be permitted in parks, unless screened by shrubbery to prevent marring of the park's beauty; that the number of the parks should be added to, as they would soon be inadequate in size for the city: that the parkway system, which is inadequate because of the method of financing, should be paid for by the assessment system prevailing in Kansas City; that there should be radial parkways from the center of the city, some streets being beautified as parkways as much as possible, and that Third street and Broadway should be made parkways under the control of the park commissioners, with building restrictions along all new parkways. The routes along all interurban lines should be beautified, he said, and a number of extra playgrounds should he' supplied in various parts of the city, these playgrounds to be beautified to some extent by shrubbery. It is not known at this time what action the park commissioners will take concerning the recommendations of Mr. Olmstead.—Exchange.

## The San Diego, California Exposition

Three years ago, in the heart of the city of San Diego, Cal., there was a fourteen hundred acre tract of land on which there was not a single building. Neither was there much in the way of foliage. For longer than the memory of man that tract of land had been untouched by water, except by the rare rainfalls which strike the city. As a result, the adobe soil was packed hard and seared by the almost constant sun. In the canyons and on the mesa there grew nothing save cactus and sagebrush and chapparal. On one side of

the mesa was a scattered grove of pepper trees, battling desperately for life without any assis-

tance in the way of water.

That was three years ago. Today on that mesa stands a gorgeous city of old Spain, and the land about the buildings, even down to the depths of the canyons, is covered with a thick growth of semi-tropical foliage, with lofty trees and spreading shrubs and low bushes, through whose deep green flashes the crimson of poinsettia, and the tecoma, and the bright gold of the California poppy. The magic garden has taken the place of the desert. He who saw the land three years ago and sees it again today, would think that some modern Aladdin had come this way and rubbed his lamp; but the only wand which the magician of San Diego used is known more commonly as a spade, or a trowel, or a garden hose.

The effect, however, is as tremendous as the

Island, and to the rugged outline of Point Loma with the bristling guns at Fort Rosecrans. Along the outline of the Coronado Islands, and about them, and thousands of miles beyond, stretches the silvery surface of the Pacific. Over the other parapet of the bridge, and beyond the canyon as it winds its way through fertile valleys of olive and orange and grape.

canyon, over the roofs of the city of San Diego, into the Harbor of the Sun, and across to the strand of

Coronado to the marine and aviation camps on North



IN THE BOTANICAL BUILDING A TROPICAL LASSINITA

IN THE BOTANICAL GARDEN LOOKING ACROSS THE LAGUNITA.

effect of old-time sorcery. Across the deepest parts of the Canyon Cabrillo, the engineers threw a majestic quarter-mile bridge of seven arches, the piers rising from the depths of a laguna in the canyon one hundred and thirty-five feet below. It is over this mighty viaduct, the Puenta Cabrillo, that a great part of the visitors to San Diego's 1915 Exposition march on their way to the sights within the old stone gate by La Puerta del Oeste.

From that viaduct, a most commanding view is seen. Over the side parapet, one looks down the winding like the foothills of the snow-capped Sierras, and to the table lands of old Mexico.

Below, is the floral work which man, working hand in hand with a most beneficent nature, has placed in the spot that was once a desert. Along the edge of the Puente stands a grove of Italian and Monterey cypress, the slim outlines of the trees accentuating the height of the bridge itself. Beyond this is a great patch of acacia of different kinds, varying all the way from darker greens to the green that is almost steel gray of the acacia and bailyana. Beyond the acacia are a few of the two hundred varieties of eucalyptus, the blue gum and the red gum and the ficifolia with its blaze of brilliant red.

Then come the palms—tall ones of the cocos pluosa variety, the thick-bodied phoenix, and the graceful swainsonia, and a score of others. There is a succession of other trees with bright blooming flowers scattered among them. Along

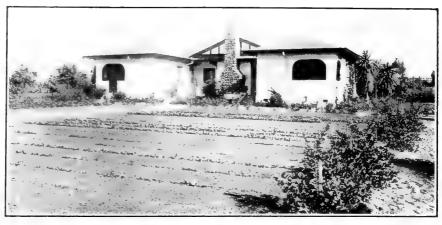
the main bridge from the West gate are copse of abelia and fuchsia, of canna and escallonia, grevillea and leptospermum; the bright orange of the lantana gleams through the hedges. These are the plants which are used extensively for broad display features.

Within the grounds an entirely new array appears. Along the Prado, lined with its double row of black acacia and the thick green lawn, stretches a hedge of coprosma with its waxy green leaves interspersed with the triumphant crimson of the poinsettia.

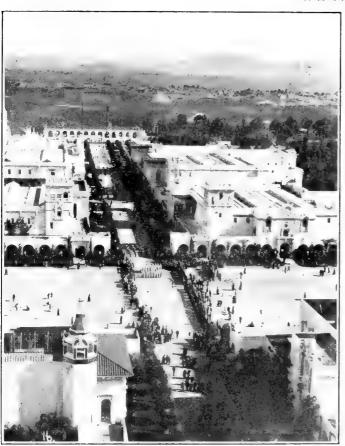
The most extraordinary floral work on the grounds, however, is that which is to be found in the Botanical

Photos copyrighted by Panama California Exposition,

Building, and the gardens which surround it. Flanked by the quiet pool, La Laguna de las Flores, these gardens occupy the entire space between the Prado and the defile which leads into the Canvon Cabrillo and the north and south space between the Cafe Cristobal and the Home Economy Building. Within the Botanical Building itself, one of the largest lath-covered structures in existence, is a rare collection of semi-tropical and tropical plants. The building is thick with palm and bamboo, and aralia, a sort of little brother to the fig tree, and banana and its relatives, and many other forms found generally in Central American jungles. The ground covering is almost en-



A MODEL INTENSIVE FARM WITH A CALIFORNIA BUNGALOW.



FOOKING LASTWARD IN FL PRADO FROM THE TOWER OF CALIFORNIA BUILDING

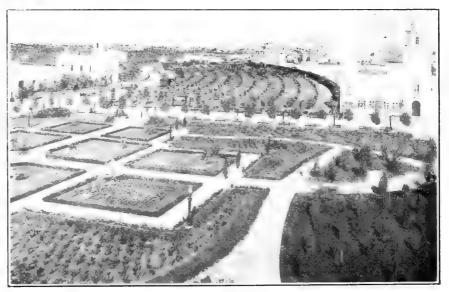
tirely isolepsis. There are two great cages from which come all day long the songs of the thrush and linnet and canary.

There is an open pool thick with lilies, almost into which falls from the ceiling the growth of vitis, one of the air plants and the sweeping fronds of tropical ferns planted along the edge. There are also the tree fern, the insectivorous pitcher plant, and other rare contributions from the tropics, but far more impressive than these strangers, is the sight of the trees and shrubs which are occasionally found in Northern conservatories, where they reach a moderate growth. In San Diego they grow out-of-doors in their natural state, and reach a height and splendor which is impossible indoors. This is particularly noticeable in Japanese cedar, wistaria and other visitors from the Orient, which fill the Japanese gardens at the rear of the main Botanical Gardens, half-concealing the pavilion which Japan and Formosa have erected as an Exposition exhibit.

Across the Alameda lies the citrus orchard of orange and lemon and grape fruit and tangerine and kumquat, and a number of interesting hybrids of various citrus grafts, all blooming and bearing in their natural surroundings. The sight of the fig and date, the apricot and olive and alligator pear is afforded the visitor of the north throughout the year in the model farm by the citrus orchard.

Further down is the tea plantation brought over from Ceylon by Sir Thomas Lipton, where some two hundred young tea saplings are growing and bearing and furnishing commercial tea leaves for serving in the pavilion at the center. Of course, the cactus of the desert country is shown, and over the view of the distant hillsides, still lies the great mantle of the sagebrush and the chapparal. In other words, everything which is natural to southern California, and which once transplanted, grows as well as if it were a native, is to be found within the Exposition gates. It is the most complete horticultural display that America has ever seen.

THE GARDENERS' CHRONICLE is a journal of useful technical knowledge for the advanced amateur. Subscription, One Dollar a Year.



THE FORMAL GARDEN WITH THE CITRUS ORCHARD IN THE BACKGROUND.

# The Linking of the Minneapolis Park Lakes

By Theodore Wirth, Minnesota.

Minneapolis is the fortunate possessor of a chain of lakes within and adjacent to the city limits. They form an important part of its extensive park system and, naturally, are the main attraction of several beautiful residential districts of the city.

Minneapolis is one of the many progressive and flourishing cities of the great Western country, and although only a little over 60 years old it has a population of about 350,000, within a city area of 53 square miles. The present extensive and comprehensive system of parks and boulevards, encircling the entire city in an uninterrupted belt of parklands 35 miles in length, is the result of the foresight, untiring efforts and labor of the Board of Park Commissioners, now entering on its 33rd year. Wise foresight and courageous confidence in the future certainly guided those men in the days of an ambitious beginning. Most of these now much coveted lake possessions were far out in the country, when they were acquired, and considerable opposition was encountered to the so-called "foolish swamp acquisitions."

The following lake areas are now included in the park

system:

Acres.	
Lake Calhoun	
Lake Harriet	
Lake Nokomis 295	
Lake of the Isles 107	
Glenwood Lake	
Powderhorn Lake	
Brownie Lake	
Loring Lake	
Birch Pond 6.5	
Spring Lake	
Total	

Of the chain of lakes along the western side of the city, four of the seven were of practically the same eleva-

tion and were separated only by low swamp lands of from 400 feet to 2,200 feet in width. The only connections between those sheets of water were open ditches and a few culverts laid under road beds and railroad embankments constructed across the swamps. Some of those lakes were completely surrounded by swamps and nearly inaccessible. Most of them offered plenty of deep water, but had in part shallow, swampy shores. The lakes are fed by springs and small streams, and some are 100 feet deep in places.

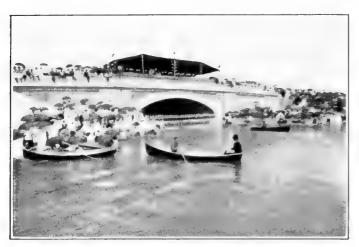
The improving of the lake parks and the construction of proper waterway connections between the lakes was the ambition of the Board of Park Commissioners, and the people of the city, for years before it became possible to undertake the work. It was not simply a matter of excavating channels and lagoons, but required the additional acquisition of expensive lands occupied by icehouses and other buildings, the building of railroad, traffic road and boulevard bridges, and the necessary approaches; in short, the entire scheme of connecting the lakes and improving the shore lands and boulevards called for a very large investment for which it was difficult to secure the necessary funds. In the meantime the large tracts of private lands adjacent to these unimproved park properties, while offering splendid and attractive building sites for residences, were a drug on the market and remained unoccupied.

Beginning in 1907 plans and estimates for these important inprovements were approved and funds secured through bond issues authorized by the Legislature and the City Council. A start was made at Lake of the Isles, where a dipper and a hydraulic dredge, through four years of work, changed the alignment of the shore, deepened shallow water and filled all low lands and boulevards to a desired grade. This transformation resulted in some 50 acres of lawns, miles of walks, acres of plantings, and splendid driveways. Where there was formerly



100 acres of water area, 33 acres of dry land and 67 acres of swamp, there is now 107 acres of water area and no more swamp. The entire cost of the improvements, exclusive of bridges, was about \$175,000, or about \$875 per acre. Private properties within the lake district increased in value from 200 to 700 per cent. inside of five years.

The waterway connection between Lake of the Isles and Lake Calhoun was undertaken in the spring of 1910 and was completed in June, 1911. The length of the direct waterway between the lakes is 1,000 feet and the width 50 feet. Three bridges were necessary for the accommodation of existing road and railway traffic. Bridge



SCENE ON LAKE CALHOUN ON DAY OF OPENING OF WATERWAY—JULY, 1911.

No. 1 at Lake Calhoun is 116 feet wide and 168 feet long and accommodates the boulevard 32 feet wide, a traffic road 28 feet wide, an electric railroad right of way 24 feet wide, and two 16-foot sidewalks. This bridge is an elliptical arch with a span of 50 feet and with 12 feet of



TAKE OF THE ISLES ENTRANCE TO WATERWAY TO LAKE CALHOUN.

head room above standard water level. It is a reinforced concrete structure faced with cut granite and cost \$60,000

Bridge No. 2 is a reinforced concrete, double track railroad bridge of the flat slab type, made somewhat ornamental through line and panel work on outside of girders and parapets. It is a four-span structure giving 10 feet head room, providing for two 25-foot channel-ways and two 12-foot sidewalks. This bridge was built by the railroad company and cost \$28,500, towards which the Board of Park Commissioners contributed \$3,000 to

cover extra cost for ornamentation and style of structure.

Bridges Nos. 3 and 4 are three-centered arches, having a span of 50 feet. They are also reinforced concrete structures, faced with New Bedford limestone. Bridge No. 3 has a solid stone parapet, while Bridge No. 4 has an open parapet with spindles and posts. Both are very handsome structures and fit well into the landscape, of which they form a distinct feature. They are 50 feet wide and 116 feet long and cost \$28,000 each.

All bridges rest on pile foundations.

Bridge No. 4 is on the Lake of the Isles entrance to the Lagoon, connecting with Cedar Lake. This waterway



REINFORCED DOUBLE TRACKED RAILROAD PRIDGE OVER WATERWAY BETWEEN LAKE CALHOUN AND LAKE OF THE ISLES.

is 2,000 feet long and is spanned by a temporary railroad and a temporary highway bridge, which will eventually be replaced by permanent structures of similar type as those herein described.

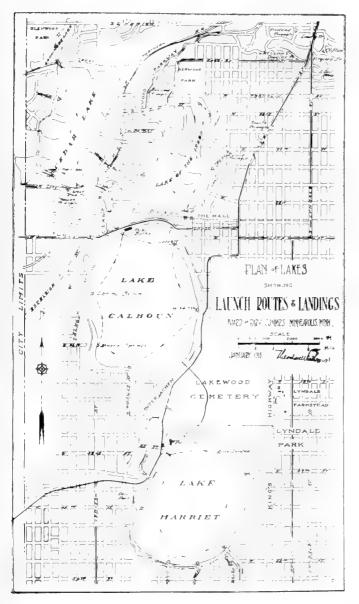
During the coming season Cedar Lake will be connected



LAKE OF THE ISLES ENTRANCE TO LAGOON TO CELAR LAKE.

with Brownie Lake at the foot of the wooded hills of Glenwood Park. This short channel, while only 500 feet long, necessitates the construction of a railroad bridge located directly under an overhead boulevard bridge. In other words, while crossing over the railroad on the boulevard bridge one crosses the waterway at the same time, which is below the railroad tracks.

The three waterways herein described and shown on the accompanying plan, connect four lakes which have a combined water area of 752 acres. The combined shore lines of all four lakes are 15 miles and the contemplated



walks, when once built, will be nearly 20 miles in length, and the boulevards  $7\frac{1}{2}$  miles.

The waterway excavations between Lake Calhoun and Lake of the Isles amounted to 92,000 cubic yards and cost \$13,340; between Lake of the Isles and Cedar Lake, 85,000 cubic yards costing \$14,200, and between Cedar Lake and Brownie Lake, 9,000 cubic yards costing \$3,500. The total amount of material moved, therefore, is 186,000 cubic yards at a total cost of \$31,040.

Extensive dredging operations have also been carried out on Lake Calhoun and Cedar Lake, the material consisting mostly of gravel and sand, which was used for boulevard and beach construction. At Lake Calhoun 473,000 cubic yards of material were so delivered, 100,000 cubic yards of which were needed for a large bathing beach.

At Cedar Lake 100,000 cubic yards were dredged for boulevard construction.

The Lake of the Isles dredging amounted to 419,000 cubic yards. The total amount of dredging done on all lakes and channels is 1,178,000 cubic yards, at a total expense of \$167,000.

In addition to that a bath house, costing \$65,000, has been built at Lake Calhoun, which accommodates 1,700 persons at a time, and has an attendance of about 300,000 per season.

The entire cost of all improvements, exclusive of land acquisitions, carried out within the district of the four lakes since 1907, amounts to \$550,000, and while this is a large sum of money, it is a comparatively small expense considering the value of these properties to the city as a whole and to its people. A large amount of work remains to be done to bring those park lands to the desired state of development contemplated, and large additional expenditures are necessary to complete the work. Time will bring the means and see it all done, and the concensus of the generation that will see it all an accomplished fact, will be that the money and efforts spent were a sound and splendid investment, which will bear compound interest for all time to come.

The series of articles on Pacific Coast Park Systems will be renewed in the April number.

# Construction Problems in Road Building\*

By Linn White, Illinois.

It is hardly true that the construction of every road or the paving of every street is an original problem in itself, requiring the collection of data and the independent determination of dimensions. For the sake of uniformity, if for no other reason, some standards must be adopted and rules formulated that are somewhat arbitrary and empirical. But, in spite of this necessity, the design of a road—width, depth and crown, as well as longitudinal grades and character of wearing surface—should be adapted to the traffic, soil, climate, drainage, etc., of the particular locality in which it is situated.

Widths of roadways are governed primarily by the extent and character of traffic. A highway may be designed for the passage of only two vehicles with no pro-

\*Extracts from a paper read before the American Road Publicis' Association, at Chicago, by the Chief Engineer, South Park Commissioners, Chicago, III. vision for standing next the curb, in which case the paved width can scarcely be less than 16 feet. As the importance of the highway increases and vehicles at higher speed use it and more provision must be made for standing room, foot passengers, etc., the width should increase to 18, 20 or 24 feet.

In a comparison between the paved width of streets and roads, note should be taken of the fact that in streets the whole width, including gutters, is generally paved and used by the traffic, whereas in speaking of the paved width of a road as, say, 18 feet, the earth shoulders and gutters are not included an additional width on each side of perhaps 5 feet, bringing the total width of such a road up to 28 feet. As an instance of the difference that may properly be made in the width of a street because of stopping and standing vehicles next the curb the following instance may be cited. One of the principal business thoroughfares leading out from the central portion of Chicago borders public park territory for more than a mile. A double-track electric car line was on the street, and on

the side next the park the pavement was made 12 feet wide from rail to curb; while on the opposite side, where the property was devoted principally to business purposes, the width was 18 feet.

Manifestly the strongest argument for keeping the width of pavements down to a minimum is that of cost, both of construction and maintenance, where the total width between property lines is not cramped. However, for certain reasons mentioned above, mainly esthetic, applying especially to residence streets, boulevards and highways, the pavement should not occupy the whole width.

The boundary lines of roads and streets are often encroached on by owners of abutting property and the actual width reduced by projecting steps, entrances, pilasters of buildings, etc. The laxity of supervision that permits such appropriation of public property to private uses cannot be too severely condemned. An encroachment once permitted is difficult to remove, and as time goes on is more and more objectionable. Encroachment on the public highway should be as vigorously guarded against as on private property. In the design of pavements sometimes features of construction are introduced that reduce the effective width, such as badly designed catch-basin inlets, excessive cross slopes, near the gutters, raised crossing and approaches to intersecting sidewalks, etc. There is nothing logical in a design that calls for a catchbasin inlet at the corner of intersecting streets with deep gutters and high curbs, and then, as a means of overcoming these unpleasant features, a raised crossing approach that forces traffic out towards the center just where congestion is the greatest.

In the improvement of country and suburban highways more latitude may be taken as to dimensions and character of pavement than on city streets. Conditions are generally more various. Location, grades, drainage, foundation, materials of construction, require more individual study and collection of data. A good road is the most potent factor in the upbuilding of a community, and it should be constructed to carry not only the existing traffic, but the increase that will be stimulated by the construction of the road itself.

Correct relation between the service demanded of a road and the elements of design, which include carrying capacity and durability, is essential in the construction of any good road. The proper depth or thickness of pavement is a large factor in determining the capacity and durability. Under modern conditions we cannot get away from constant maintenance if we are to have satisfactory roads and streets. Therefore it is impracticable to construct so liberally and permanently as to entirely resist wear. The Romans achieved this to a considerable degree in their roads, which were several feet thick, built of layers of stone blocks. So their principal roads or some remnants of them exist to-day, but do not meet any of the needs of to-day. They did not know, apparently, much of the art of sub-surface drainage or preparation of the roadbed to receive the stone; and while it is possible they may have crowned the surface to take away the surface water, there is little doubt but their roads were rough, dusty, non-resilient and generally unsatisfactory according to modern standards. Certainly, they would be now, and were then, expensive to construct. At that period there were but few roads, only between important points and principally for military purposes. Now the demand is for roads everywhere built as economically and as efficiently as possible. The thickness, no matter of what material constructed, should be the minimum compatible with intelligent planning. With all the foresight that can be exercised, a road good for this decade will not be good

enough for the next decade, all of which is but saying a large part of the road problem is a maintenance problem.

An efficient thickness of pavement involves all other elements of economical construction—proper underdrainage, compaction of subgrade, crowning and waterproofing of surface, etc.

With all the kinds of wearing surfaces that have been devised-stone block, brick, creosoted wood, asphalt and tar compositions, oiled and water-bound macadam, and the infinite variations thereof—there are only two recognized materials for foundations—concrete and macadam. The main difference in the action of the two is that concrete is practically homogeneous material, the particles positively bonded and knit together so there is a beam or slab action carrying the wheel road over a comparatively broad expanse of base, while macadam is made up of separate particles which are inter-supporting only and transmit the load from one particle to the others beneath. As one particle of stone in the surface may be supported by two, three or four particles immediately below, and each of them on an equal number in the next lower layer, and so on down to the earth beneath, we may reasonably estimate the wheel load is spread to the earth base at an angle of approximately 45 degrees in all directions. Thus, if the contact surface of a wheel is 4 by 6 inches, and the load on each wheel 2,000 pounds, it will be spread over approximately 2 square feet of supporting earth. If the supporting power of the earth is 1,000 pounds per square foot (authorities give from 500 to 2,500 pounds per square foot, according to character of earth, effectiveness of drainage, etc.), we may conclude our macadam foundation is thick enough to carry the load.

A concrete foundation will obviously spread the load to a greater extent than macadam, on account of its homogeneity and consequent slab action, and may be made correspondingly thinner. Consideration, however, must be given to the fact that the breaking strength of a 5- or 6-inch slab of concrete, made as such concrete usually is, cannot be very high. Cracks occur in concrete foundations on account of contraction, settlement, etc., which reduce the slab action.

There is another reason why concrete pavement foundations can safely be made thinner than macadam, and that is the greater stability of the mass or resistance to lateral displacement.

If there is a wearing surface of blocks, asphalt composition, or other material, on top of the concrete or macadam foundation it will further assist in the spread of the road. The transmission of the load to the foundation through a wearing surface of blocks can only be safely calculated in vertical lines with a surface contact the size of the block, on account of the vertical joints between blocks.

The thickness of the various types of wearing surface is mainly governed by practical reasons. It is not by any means true that pavement surfaces generally are to be improved by arbitrarily increasing their thickness. Two inches is probably the practical and economical thickness for asphalt and asphaltic concrete wearing surfaces, because before the two inches is worn away the inequality of surface becomes a serious objection, and a greater thickness would allow it to roll and shift when softened by hot weather. Creosoted wood blocks cannot be made less than  $3\frac{1}{2}$  or 4 inches thick, because the blocks would split too easily.

The crown of a pavement is a matter almost entirely of surface drainage. Even though a road or street has a considerable longitudinal grade, it is necessary to carry the surface water to the gutters. The crown probably

(Continued on page 139.)

assists somewhat in keeping the central portion of the street clean, as dust and dirt are more easily swept to the gutters by rain, winds and passing traffic. As far as the use of a pavement is concerned, it would be more desirable to have it level in cross section, and under certain conditions safer. A vehicle turning on the outward sloping crown of a road is pitched in the wrong direction, and if the pavement is slippery, tends to slip or skid. The outer rail of a railroad is raised on curves to assist in turning the curve and the better to resist centrifugal force. On a street pavement the inner rail, so to speak, is raised, and, according to any method of construction yet developed, necessarily so. The problem is to reduce the crown as much as practicable and establish reasonable rules for distributing the pitch fairly evenly across the width of roadway. The character of wearing surface has much to do with the amount of crown permissible.

The following list of pavement surfaces is arranged in

the order of amount of allowable crown:

Water-bound macadam—Oiled and tarred macadam (surface treated) — Stone blocks — Brick — Bituminous concrete (mixed before laying)—Sheet asphalt—Creosoted wood blocks—Portland cement concrete.

In this list creosoted wood block is put near the bottom because it is a slippery pavement surface and needs a flat crown. Also, by reason of the true surfaces and gauged size of blocks, it can be laid close to a theoretical grade. Portland cement concrete is put at the bottom of the list, not because it is slippery, but because on account of construction methods it can be screeded or struck to a fairly exact grade, whereas other plastic pavements, bituminous concrete and sheet asphalt, cannot be made so exact on account of the necessity of rolling after spreading to secure compression.

If the longitudinal grade of the pavement is practically level, the crown must be greater at catch-basin inlets than at gutter summits between inlets, unless the grade of the center of the roadway is carried up and down with gutter less on the increased crown section.

grades, which is not a desirable method. On streets with longitudinal grades requiring water in gutters to flow all in one direction, and on country highways where drainage is carried away by surface ditches, the crown may be made the same at all points.

The cross section of a pavement may be a segment of a circle, parabola, or two inclined planes connected with a segment of curve. Either of the two latter forms is preferable to the first, because a segment of a circle makes the pavement fairly flat in the center and grows unpleasantly steeper near the gutters. The inclined planes or parabola "get away" on a quicker slope from the center and do not so materially increase as the gutters are approached. Traffic, then, will use all parts of the pavement with fairly equal facility and ease.

Whatever theoretical crown or cross section is adopted, it should be remembered that in actual construction the cross section will be only approximated. It is not practical to set enough grade points or to maintain them care-

fully enough to attain the theoretical section.

In practice, in setting grades for crown or cross section, it is common to adopt a rule of measuring, say, onehalf the distance from the center and dropping one-fourth the total crown. This will give a segment of an all-curve cross section. Another rule may be to measure two-fifths the distance from the center, drop one-fourth of crown and thence straight to the gutter. Other modifications of such simple rules may be devised, using three points on wide roadways between center and gutter, approximating more closely to a true parabola or providing longer inclined planes and shorter connecting curve. It is sometimes advised to increase the crown on pavements having considerable longitudinal grades, thus carrying the water more quickly to the gutters. The opposite practice is generally better-to decrease the crown on steeper grades. There are two reasons for this—the tendency to slip or skid is less, and the washing or cutting action of water is

# Horticulture at the Panama-Pacific Exposition

By G. A. Dennison.

The growth of the great industry typified by the Department of Horticulture at the Panama-Pacific International Exposition can be better appreciated when we realize that it was found necessary at this exposition to devote an entire department to its portrayal—a recognition which has never before been accorded to horticulture at an international exposition. The comprehensive scope of this exhibit, the plan underlying it all, and the artistic presentation of the "best of the best" from the horticulture of the many nations participating will make it historic as well as vastly entertaining and instructive to all who join the exposition's throng.

The aim of the department has been to present the advancement which has been made in the past few years by each branch of the horticultural industry. From what is known as the great back-to-the-land movement, the creation of fine country estates and the advance of scientific application to horticultural pursuits, there has arisen an insistent demand for orchard products of the highest merit, and for a more comprehensive treatment and a more intelligent application of ornamental trees and shrubs. The making beautiful of a practical thing is a great influence spreading over the country.

The horticultural exhibit will include displays from Japan, England, Scotland, Ireland, Australia, New Zealand, The Netherlands, France, Argentine, Cuba, the

Philippines, Hawaii. and the following States of this Continent: Oregon, Washington, Utah, Idaho, Montana, Nevada, California, Colorado, Kansas, Missouri, Arkansas, Illinois, Iowa, Indiana, Ohio, New York, Massachusetts, Rhode Island, Pennsylvania, New Jersey. Florida and Maryland.

The general plan of this exhibit is based on three divisions: The outdoor, the conservatory and the economic

display

A garden of nine acres lying to the south of the Palace of Horticulture and in front of the Inside Inn has been set aside for the outdoor exhibits. Every participating State and nation have part of its horticultural display in this garden. The Netherlands and the State of Massachusetts make their displays exclusively in this section. Holland's unified exhibits are presented under the auspices of the National Board of Horticulture of the Netherlands, personally represented by their expert, Airie Van Vliet, and is of such character as to represent the quintessence of the floral culture industry of that country. The material shown was commandeered by the national organization, so that only the finest specimens are on display. Not one member of the organization is advertised—it is a collective display representing the growers as a whole.

A flowering mass of 60,000 bulbs is but an item in this

gorgeous part of the exposition. Trees which have attained their growth in their native Dutch soil, large beautiful and flourishing in their environment alongside rhododendrons, trained conifers and numerous growing botanical specimens all planted in relation to a definite landscape garden effect, designed by D. T. Tersteeg, of Maarden. Holland, the most noted among the famous landscape architects of his country, will be shown in this exhibit.

The Japanese garden display is made under the direction of the Government Bureau of Forestry. The landscape treatment, which is a work of art, is the design of Hannosuke Izawa, the greatest of Japan's landscape architects, and it holds many a surprise for the exposition visitor.

The display of Massachusetts, representing the combined

offerings of her best growers, constitute a Colonial garden, in which a fountain and sun dial are ornamental features. The landscape treatment here, planned by Stephen Child, one of the foremost in his profession in the United States, has a thoroughly practical side, while being also a masterpiece of beauty, as it is designed as an object lesson showing how to make the most effective use of the trees and other forms of plant life represented.

One of the greatest and most interesting divisions of the outdoor horticultural display is the California Garden. This has been laid out by Carl Purdy, who is best known for his world for the first time at this exposition. A spacious rose-bed set apart for these lovely flowering competitors will be a spot of novel beauty. Whatever rose receives the vote of honor will be given a name commemorative of the great exposition in which it grew and blossomed into world-wide fame. Among the renowned rose growers who have entries in this contest are Hugh Dickson, Ltd., Belfast, Ireland; Samuel McGredy & Son, Portadown, Ireland; E. Pernet-Ducher, Venissieux-Lyon, France; Dobbie & Co., Edinburgh, Scotland; S. Bide & Sons, Ltd., Farnham, Surrey, England; E. G. Hill, Richmond, Indiana; Howard & Smith, Los Angeles; The Brant-Hentz Flower Co., Madison, New Jersey; John Cook, Baltimore, Maryland, and Peter Lambert, Trier, Germany.

It has been our endeavor to individualize the displays



FHE PALACE OF HORTICULTURE. THE DOME IS PATTERNED AFTER THE MOSQUE OF THE SULTAN AHMED I AT CONSTANTINOPLE AND IS 152 FT, IN DIAMETER AND 185 FT, HIGH.

VIEW SHOWING LANDSCAPE TREATMENT BEFORE THE MAIN EX-HIBIT PALACES, THE PALACE OF LIBERAL ARTS TO THE LEFT AND DOME OF HORTICULTURAL PALACE TO THE RIGHT.

original botanical work which has made possible the domestication of California wild flowers.

In that portion of the outdoor exhibit known as "The Eastern Garden" is a general area for the miscellaneous exhibits not grouped with the bulk of growers' displays. Here will be found a magnificent exhibition of roses from Rhode Island and Maryland, wonderful new heliotropes of exquisite color and rich fragrance from New Jersey, iris and peonies from Pennsylvania, and countless other delicate beauties from the many flowering zones of the world.

Great interest has been excited among the rose growers of all nations by the International Rose Contest in which the exposition offers a \$1,000 trophy for the finest seedling rose, unnamed and heretofore unexhibited, but which is to be brought forth for the admiration of the

in as far as it is possible. The growers have not submitted selected specimens of all the sorts they sell, but instead each has contributed the one, or two or three varieties which he has brought into being. Bertrand Farr, Reading, Pa., sent a splendid display of 400 varieties of iris; while among the interesting new offerings, Charles H. Totty, Madison, N. J., has a heliotrope of richest perfume and with many attributes lacking in older varieties. This has never before been shown and, as he permitted me to

choose a name for it, I named it for my mother, Elizabeth Dennison.

Considered apart from its relation to the varied exhibits which it will domicile, the Palace of Horticulture is in itself a feature. It is one of the most attractive palaces on the grounds, and the most striking architectural triumph created for any exposition. Whether the sweep of the exposition's 635 acres is viewed from the distant hills or from the bay, this commanding edifice attracts attention and admiration. It is colossal in size, 672 by 320 feet; made almost entirely of glass, surmounted by a hugh glass dome, 185 feet high and 152 feet in diameter, larger than that of St. Peter's at Rome; and was erected at a cost of \$341,000. The decoration and rich ornamentations have the French renaissance feeling. The numerous smaller domes that surround the building are of lat-

tice where rare vines will intertwine and flowers bloom to give added beauty to this structure typical of plants and flowers.

Here the different parts of the world will be represented by choice and magnificent specimens. Tropical fruits, shrubs, flowers and palms from many countries are massed here, with vines that festoon the whole until it promises a resemblance to a tropical jungle.

Under the great dome the visitor will find a tropical garden, the exhibit of Cuba. Growing in this garden will be an elaborate and representative collection of trees and



INJUIDIT OF AQUATICS BY HENRY A DRIER AND

other plants which made fourteen carloads when brought from that tropical country.

The corner triangles created by cutting out this great circle are filled with pools that afford appropriate setting for an assemblage of aquatic plants of every variety. A remarkable collection of Henry A. Dreer, of Philadelphia, and another equally notable one of William Tricker, of New Jersey, attract well deserved attention.

The Hawaiian exhibit in the Palace of Horticulture is made under the direction of the United States Department of Agriculture. A large collection of hibiscus, one of the many forms of floral life native to Hawaii, will be displayed with splendid specimens of Cybotium Henriesi. Among the pleasures offered the visitors is a visit to a miniature pineapple plantation. Australia will exhibit giant ferns whose

size eclipses any ever heretofore shown in America. Here also will be found an opportunity to see a bit of old Japan, with its quaint and oriental aquariums of gold fish surrounded with thickly growing bamboo and other plants peculiar to this strangely fascinating country. In the Philippine Building and forming part of the exhibit of this department is a great floral treasure bed, rank and beautiful with a blooming exhibit of over 400 varieties of dainty orchids, blending their wealth of colors in one indescribable picture.

The economic section of the horticultural exhibit will also be housed in the Palace of Horticulture. The domi-

nant idea in the displays presented here is to show plant life and its products in relation to actual use—rather than to mass objects of curiosity and rarity for idle sight-seeing purposes. Herein the horticultural exhibit at this exposition marks another distinct departure from precedent and places itself on a unique and practical basis. As a whole this part of the exhibit will be a great industrial demonstration of instructive value and interest showing processes as well as products. This whole will be made of individual exhibits, in separate booths comprising both State and foreign displays.

The fruit displays are many and various. The State of Washington features its specialty in an apple sizer in operation and the packing of fruit. A fig grader is also shown which separates the sizes.

An ingenious display of horticulture machinery will show practically everything up to date in the line of appliances and implements used in the care and handling of soil, plant forms and their products. While, perhaps, the most vitally interesting exhibits will be those showing the natural and artificial methods of combating insect pests, fungus diseases and parasitic growths affecting ornamental trees and plants, a display of wonderful beauty will be made of objects of garden ornamentation of which fountains, garden seats and statuary are examples.

As a whole the horticultural exhibit of the exposition has been planned with a five-fold purpose, to appeal with

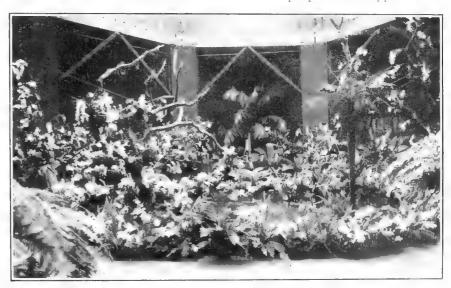


EXHIBIT OF ORCHIDS BY MACRORIEMACTARES CO

equal interest to the tourist, the visitor, the student, the business man and the investor. The tourist will see the pride and glory of the soil from the "other sections of the world." The visitor will be entertained by the beauty and novel wonder of all that is before him. The student will find here an unequaled opportunity to increase his store of knowledge on all points pertaining to the horticulture of the earth. The business man will find the exhibits of commercial products so arranged as to permit the placing of orders on the spot. The investor will be able to discover through actual living evidence of productive possibilities of soil from every section of earth.

# Six Months of Spencer Sweet Peas

By Thomas Ryan, New York.

For spring blooming, Sweet Peas under glass, seed should be sown at the end of September, preferably in the propagating bench. Examine the seeds at the end of a week and those still hard should be filed or chipped, for some hard-coated varieties will remain weeks without germinating unless given this treatment. Do not water the bench unless necessary, as many varieties will surely rot (especially the seeds of the white ones) if the sand is kept wet. In ten days to two weeks the seedlings should be ready for potting, for it is not advisable to let them remain too long in the sand. The seedlings are easily handled at most any stage of their growth. Pot off into four-inch pots and place in cold frames. Along in November they should be covered at night, but give all air possible in the day time. Leading shoot should be pinched out to induce breaks from base. By the first week in December these should be sturdy plants; if the

as nothing but a long stem will result from so doing. Grown cool by the middle of February they should not be more than three feet high, but if forced will easily double this. About this time to the first of March buds will be showing at end of shoots, and they can now be given a few degrees of higher temperature.

Blasting of buds will likely appear on first crop of flowers, but beyond losing a few flowers will do no harm. All breaks at base of flower stems should be pinched out and all growth from now on should consist of one leaf to every flower all up the stem. When the growth has reached to the top wire, commence at bottom and cut away ties, pull the stem down and let it hang down. It will do no harm unless it gets kinked too much. By following this method a twelve-foot stem can be grown with very little head room. These should be throwing fine flowers with grand stems in April and May. Countess



MRS. W. J. UNWIN.

CHARM.

ORCHID.

weather keeps mild let them stay in cold frames, if till the end of December so much the better. At this time the plants should be taken in the house and planted, preferably in boxes as they are more easily handled this way and can be taken outside again in the latter part of May where they will continue to bloom outdoors. It is better to keep in house, if possible, till the outside grown ones commence to flower. Boxes should be eight inches in depth, about ten inches in width, and any length desirable, which should be filled with good garden soil (no manure). Try to give the plants four feet of head room, plant twelve inches apart, save the three strongest looking shoots, and cut all others away. Run one wire along top and one at bottom, string these wires from top to bottom three strings to a plant, one for each shoot, and as they grow keep tied to strings with raffia. All tendrils on leaves and breaks from base of leaves should be kept pinched out and leaving only the leaving growing on stems. A carnation house is good to grow a few boxes in, as this temparature suits them. Do not force them, Spencer, grown under these conditions, has thrown stems two feet and two inches in length. Feeding roots will be seen working on the surface of soil in March, and in April boxes should be top-dressed, not too heavy, but a little at a time with good soil. Along in April the plants can be fed with liquid manure made weak but applied quite frequently once a week, in May twice a week. A few good varieties for indoor growing are:

King White in white, Countess Spencer and Elfreda Pearson in pink, Barbara in orange, Irish Belle in lavender, Dobbie's Cream in yellow, Margaret Madison in blue, Scarlet Emperor in scarlet, May Campbell Senator

Spencer and Loyalty in striped.

In addition to the foregoing suggestions, a few hints may be given on watering. A good watering when planted in house should last about a month, as growth in January will be very slow and the soil should not be kept too wet.

While the growing of these varieties hardly pays under glass now that we have the winter-flowering orchid

varieties, still where high grade flowers are required of Sweet Peas and as long a season as possible, this system and the following one outside will give the highest grade of flowers for five months in the year, and where climatic conditions are more favorable to the growth of the Sweet Pea than here I have no doubt could be extended to six months.

For flowering outdoors seed should be sown the first to middle of February, potted into four-inch pots and kept in house till middle of March, then placed in cold frames till middle of April when they can be planted outside. For those having no greenhouses a good method is to sow two or three seeds in a four-inch pot about the middle of February and place in frost-proof cold frame. Keep all heat in possible till germination, keeping the strongest seedling and pulling out the others. Trenches for planting these in should be dry, preferably in the fall, at least two feet deep with a dressing of lime given and left open all winter. In spring a dressing of well rotted manure should be placed along bottom of trench and well tamped, one barrowful of manure to every twenty feet of trench filling will be plenty. When trenches are filled up give a good tamping, leaving them slightly depressed. A row fifty feet long will need five stakes: three-quarter or half-inch pipe is good for this purpose, and they should be six to seven feet high above ground level. Along these stakes run four rows of wire; up against and tied to these wires place cane stakes pressed into ground a few inches, four inches apart the length of the row. The very cheapest thin Japanese can stakes are good. The trench is now ready for planting and will require fifty plants each, one grown to three shoots. Each shoot has its cane stake which it should be kept tied to and treated the same as indoors. Buds will probably appear on these plants when they are a foot high, but should be pinched off. The orange and reds will need shading; cheese cloth is good for this purpose; light frames should be made twelve feet long and on this the cheese cloth can be tacked. When picking for exhibition try to pick day before show and place in cool, dry place; do not crowd blooms in vases, as they will develop wonderfully if given room to do so. In staging give preference, if possible, to bright colors, and in the small classes have them all bright colors. The varieties before mentioned are all good for outdoors with the addition of:

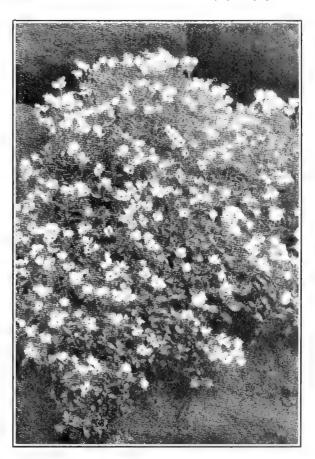
Edna Unwin, orange scarlet; Edrom Beauty, orange pink, a beauty, but bloom very soft; Hercules, pink; Doris Usher, cream and deep pink; Inspector, orange; Mrs. Cuthbertson, rose-pink, very large; Mrs. C. W. Breadmore, cream, edged pink; Nubian, chocolate; Rosabelle, light rose, very large; Thos. Stevenson, orange-scarlet; Lady Evelyn Eyrie, blush-pink, the largest of all; Paradise Carmine, stands out by itself in this color, but seed very difficult to obtain.

Extra fine blooms can be obtained by selecting buds eight to ten days before show by pinching out the entire head of shoot above the flowering stem in which the buds can just be counted. Care should be taken though to let a break come alongside the flowering stem, which will take the place of the pinched top. Watering should be done at the rate of five gallons to a plant once a week.

## AUBRIETIAS IN THE SPRING GARDEN.

Those who make careful use of the best spring flowers have been rejoicing in some recent improvements in the Aubrietia. Among these the most valuable of those now well known is the beautiful variety Lavender, of good size, fully bloomed and of true Aubrietia color. In the

progress of variation of a garden plant, growers are apt to overlook the best purpose or intention. The lures of size, novelty and variety are often illusive; they attract and lead into blind paths. The thing to look for is the purest beauty of which the plant is capable. In the matter of coloring in the Aubrietia the very finest quality may often be picked out in a batch of seedlings of the type A. graeca. It is a clear, pure lavender purple rather light than deep in tone. We are grateful, writes C. Jekyll in the Garden, for the fine deep-colored variety Dr. Mules, but to the artist-gardener it is not a plant to use by itself in large quantity. Its value is best shown when a few plants are grouped with a larger number of a good form of the more typical coloring. Of the heavy reddish colorings, and even the deep purples inclining to reddish, as far as my own feeling and experience are concerned, they are better avoided altogether. The only colorings with anything approaching a reddish tint that seem to me desirable are the very beautiful palest pink Moerheimii, of Dutch origin, and a slightly darker one, called Bridesmaid. Both are extremely pretty plants and



A SPECIMEN PLANT OF AUBRIETIAS IN A ROCK GARDLY

go well together. For the present the pure, rather light colored kinds resembling the fine Lavender would seem to be the best.

The absence of the white eye makes the flower much more effective in the mass. I am of opinion that the size of Aubrietia bloom should not be further increased. It is not in the nature of the plant, a true alpine, to have large flowers. The mass of small blooms of good form and pure coloring is the true character of the plant and the source of its charm and attractiveness. These charming spring flowers deserve to be more widely grown, both in the rock garden and the border, than they are at present. Their cultivation is not difficult.

# Work for the Month of April

By Henry Gibson.

PLANTING TREES AND SHRUBS,

With the advent of April real activity begins in the outdoor departments of the garden. The change from the routine of winter is a welcome one, and a pleasure

When the ground is in good working condition the planting of trees and shrubs should be proceeded with. As soon as the frost is out of the ground this work can be done, but often the soil is wet and soggy at the time, which prevents close contact of the soil with the roots. In the actual operation of planting, close contact of roots and soil is most essential to success. The soil should be rather dry than wet, so that when filling in around the roots it will fill up the crevices completely. Sandy soil, or even sand itself is excellent for this purpose. It should be used only until the roots are well covered, and then the usual soil can be utilized for filling in. Ramming at the soil also helps to put it in closer contact with the roots. Watering too is always of use in that it places water within reach of the roots, and in soaking down it carries the soil into closer contact with the roots, than can be done by any other means.

Pruning of the roots and branches is a part of the planting operation that should not be overlooked. Nurserymen always endeavor to preserve as many roots as possible when digging the stock from the nursery, but no matter how careful they are, some roots are sure to be damaged. All such roots should be cut off to a smooth surface previous to planting. From a clean cut surface fibrous roots, which are the active agents in the absorption of plant food from the soil, are more freely emitted than is the case from a ragged broken surface. Pruning of the branches can be done at the same time, cutting out weak ones entirely, shortening back others, especially such as are misplaced. It is claimed by some authorities that deciduous trees should be planted before evergreens, but we believe that both require early planting. Of course there is deciduous stock that is impatient of growth, and pushes into leaf early. These demand attention first, for if they are overlooked until the foliage is well developed their success is not so certain.

Much disappointment is often expressed at the loss of the flowers of the early flowering shrubs. This is undoubtedly due to their being planted in unsuitable positions. The north side of the house, banks, walls, or other buildings is the most suitable place for them. Here their buds are not advanced and started into growth by the warm sun of late winter, only to be killed by a belated cold spell.

### LAWNS.

It is at this time of the year that the soaking rains and melting snow of winter are of benefit to the lawns. With plenty of moisture in the soil, and the warmth of the spring the grass will soon get into active growth, and assume that rich green tint that all welcome. Any renovating that is to be done should be attended too as soon as convenient. Moss should be raked off, weeds rooted out, and top dressing of a good garden loam applied previous to sowing seed on bare spots.

A general top dressing for lawns that are anyway impoverished is made up of 1½ pounds of nitrate of soda and 1 pound of fine bone meal thoroughly mixed together and applied at the rate of six cwt. to the acre. Two parts of good loam and one of sheep manure is also good and less expensive.

BULBS AND PERENNIAL BORDERS.

The material that has been used for protection on the bulb beds and perennial borders should be removed as soon as possible. The weather is considerably warmer now, and heavy protection left on too long tends to set up premature growth which when uncovered is easily killed by very little frost. In case when there is much young growth, it would be advisable to leave on a light covering, until the weather is more settled. It will also be necessary when doing this work and especially on the beds of bulbs to take care that none are broken. Many of the bulbs will have made growth that have penetrated well into the material used for protecting them and by the careless removal of same much damage can be done.

The present month is a good time to make a new border, extend the old one, or do any transplanting and

rearranging that may be necessary.

A perennial border is to be permanent for some years at least, so see to it that soil is deeply dug or the trench is well enriched with well rotted manure. A good coating of bone meal and wood ashes would also be beneficial. Select a place for the border away from large trees and shrubs, which rob the plants of much of their sustenance. The time to plant is just as the plants are emerging into new life. If you are dividing up old clumps do not cut them into pieces with the spade, thus destroying many of the roots, but force them apart by placing two digging forks back to back. The outside and younger portions of the clumps are more vigorous than the older central portions and are to be preferred for replanting.

See to it that each plant has plenty of room to fully develop, massing them in conspicuous groups that will make one sit up and take notice is far more satisfactory than dotting them here and there. Blending the colors is also important, so as to avoid having too many of one

shade together.

#### HARDY ROSES.

The planting of hardy roses should be proceeded with so as to have them established as early as possible. Roses require a situation with a southern exposure where they can have full sun all day, and some shelter from north winds. While they will grow and give good results in almost any fertile soil, yet the ideal rose soil is a deeply

dug, well drained retentive loam.

If the soil is naturally poor it can be renewed with old sod from an old pasture, to which has to be liberally added well decayed cow manure. When planting take into consideration the vigor and growing habits of the plants you are using. About three feet apart will be the limit for the stronger growing ones and eighteen inches for the weaker ones. Should the plants be on their own roots there will be no suckers to contend with and shallow planting will be all right, but in planting grafted stock it is advisable that the union is two or three inches below the ground surface. By so doing the trouble from suckers is considerably lessened and the union is kept in better condition. Dig the holes sufficiently large to allow the roots being spread out, and work the soil well among the roots, leaving it well firmed.

Pruning also should be attended to, both of the newly planted roses and those already established. There are two main objects in pruning roses that should not be overlooked, viz.: the production of new wood and the removal of all weak and superfluous growth, so as to direct the energy of the plant into the remaining growth.

and at the same time let in a maximum of light and air. No hard and fast rules can be laid down in garden operations, but in pruning roses it is quite safe to say that the weaker the growth is the harder it should be turned back. Leaving three or four good buds of last season's growth is what is needed on the weaker growths, and the stronger ones can have a foot or two cut away and then be tied or pegged down.

#### PRUNING HARDY CLIMBERS.

There are a number of hardy climbers that should be pruned at once if the work has not already been attended to. Among these may be mentioned, Wistarias, Clematis paniculata, Bigonias, Loniceras, Dutchman's pipe, etc. Cut the Clematis paniculata back quite hard for best results. For English Ivy and Euonymus radicans no pruning is necessary at this time but any dead shoots on the ivy would be better removed now. The pruning of climbing roses is as well deferred as long as possible. If they are pruned too early they start into growth at once with a warm spell, and if a cold snap immediately follows much injury results.

#### SWEET PEAS.

Few subjects have received more attention from horticultural writers than the care of Sweet Peas and how to obtain the best results. No matter how detailed may be the notes on their culture one important point seems to be overlooked when reduced to practice and that is the necessity of working the soil deeply. We mentioned last fall in these notes the necessity of trenching the soil deeply. Sweet Peas cannot withstand the heat of July for any length of time when the soil has only been dug a few inches deep. Give the roots a chance to get down into the cool moist earth and note the difference during the hot weather. The heavier your soil the deeper it should be worked and the finest plants will result. Have the seed sown as soon as the ground is in condition to work. Sweet Peas make their best growth during the cool weather. If you have started seed in pots don't wait too long before you put the plants out. A little touch of frost won't set them back very much. Have the supports ready too, whether it be chickenwire, twine, or brush. It is better to have these in place early, so long as there is room for the cultivation, than to have to rush them in place when the plants are a foot or more high.

### PLANTING GLADIOLI,

Sort over the Gladioli and select the smallest bulbs for the first planting and keep the larger ones for later use. A succession of plantings can be made from the time the ground is fit to work until the end of Tune. Have the

the ground is fit to work until the end of June. Have the rows from two to three feet apart and plant the bulbs 3 or 4 inches apart in the rows and at least 4 inches deep. The ground should be deeply worked and a good dressing of old cow manure incorporated with it. When the plants show above the ground keep the cultivator busy.

### THE VEGETABLE GARDEN.

This department calls for a good deal of attention at this time, but in one's anxiety to get the seeds in as early as possible care should be taken to avoid sowing in wet cold soil. String beans especially should have warm and reasonably dry soil to germinate in. Early varieties can be started in cold frames with much greater chance of success than is the case in the open ground until the weather becomes settled.

Potatoes for early use may be planted in a sunny border, where annuals are to go later on. It takes a little judgment to make these things fit in but it can be done. Potatoes take from 80 to 100 days to mature in ordinary seasons, and should be out of the way, by bedding out time in the majority of localities.

Parsnips require a long season of growth, but for ordinary table purposes there is plenty of time to get them in. For the exhibition table, however, they should be planted as soon as possible. These call for a little more than ordinary culture if they are to be winners. Thin out to twelve inches apart as soon as the little plants can be handled and give those left every encouragement in the way of watering when needed, and occasional feeding to help them along.

#### SUCCESSION CROPS,

Lettuce, radishes, cauliflower, cabbage, beets, carrots, etc., may be sown for succession. Small batches sown at frequent intervals are always more satisfactory in that they are young and tender than is the case if large sowings were made less frequently.

Musk melons, cucumbers, eggplants and peppers, should be sown early either in the greenhouse or hotbed, for planting out to provide early crops.

These plants will undoubtedly be subject to various temperatures, so it will be well to grow them as sturdy as possible. Eggplants do better in a warm moist atmosphere where the night temperature is between 65 and 70 degrees, but for any of the others 60 degrees should not be exceeded.

## THE GREENHOUSE PLANTS.

### POINSETTIAS.

Stock plants that have been stored away on their sides under the benches since last December with little or no care should be brought out and prepared to start into growth. The old soil should be removed from their roots, and then they can be potted into such sized pots as will conveniently hold them. If put into a rose house, temperature kept fairly moist they will break into growth in a few weeks and provide fine material for propagating from.

### CANTERBURY BELLS,

It is from now until way into July that Canterbury bells are at their best. Where it is intended to grow these plants for forcing, next spring seeds may be sown any time now. Sow the seed thinly so that the seedlings do not become crowded at an early stage. Prick off three inches apart, as soon as they can be handled nicely. In June they can be planted out in the garden where they will remain until late in October. With good culture they will develop into fine plants with strong crowns for forcing.

#### SHADING.

With the increased sun power it will be necessary to apply shading permanently to such plants as violets, palms, ferns, orchids, etc. It is always better to do it before any of the foliage becomes scorched. Too dense shading is conducive to soft growth and should be avoided. While it is important that the direct rays of the sun should be excluded, yet all the light possible should be afforded the plants.

THE April number of "Gardeners' Chronicle" will contain articles on Flowers for the Hardy Garden, by Bertrand H. Farr—Growing Exhibition Dahlias, by P. W. Popp.

### GROWING STRAWBERRIES FROM SEED.

By C. H. Chamberlain, Massachusetts,

To those desiring something interesting and with great variation in results, let them try growing strawberries from seed. First start with some definite object in view. As an example, I will give the results of one of our experiments along this line. Our object in doing this was to obtain, if possible, a vigorous growing, large, everbearing, nice flavored strawberry. In 1906 we planted side by side the Marshall and Pan American varieties, allowing the bees to do the fer-tilizing of the blossoms. The following season we saved the best berries from the Pan American plants, sowing the same in August in boxes of one-third peat, one-third garden soil, one-third sharp sand, sifting the same and covering the seed lightly, keeping the same under glass with plenty of moisture, and keeping them over winter in the green-house, planting into the open ground in May. Most of these plants, about 2,000 in number, produced berries the second season. Results were we had berries like both parents. We had strawberries large, small, good flavored and poor, one crop, two crop, and all season bearing, and some that never bore at all. Some put on plenty of runners, others not

After several years' discarding we have three varieties left; all are vigorous growers, one bearing two crops in a season of large nice flavored berries, and producing a few runners; one bearing three crops in a season of large perfect berries of a tart, woody flavor producing a quantity of runners. The other, which we have named Ideal, a vigorous grower bearing in quantity all the season from June 15 to freezing, large perfect berries of a strong wild strawberry flavor and producing a great quantity of runners. This variety we intend to introduce soon. This berry (Ideal) received a first class certificate of merit from the Massachusetts Horticultural Society at Boston, in August last. While we have never tried forcing any of these varieties under glass, we have every reason to believe it would be a success. Growing strawberries from seed has been the most interesting cultural experience I have ever had, and at small expense.

## GROWING CANTALOUPES.

After a thorough preparation of the soil (almost any soil well drained and not sour) by deep plowing and an unlimited amount of harrowing, mark the land off at right angles, six feet apart each way, making holes at intersecting points about 15 inches in diameter and 5 inches in depth. Into these holes place about one-half shovelful of well-rotted stable manure, preferably horse, or horse and cow mixed, then cover lightly with earth, scatter about 25 melon seeds, covering these with one or more inches of earth, and pat down lightly with hoe.

It has been, of late years, a weather gamble regarding these early outdoor plantings, as to whether the seed will germinate or not, and, to overcome this trouble, a successful grower for the hotel trade relating his experience in the *Market Growers' Journal* says, he now resorts to the greenhouse planting the seeds in strawberry baskets or dirt bands, during the latter days of April and transplanting to the field about June 1. By using ordinary care in having composted soil in baskets damp clear to the bottoms, he removes them without disturbing roots in the least, setting out acres of them very rapidly and seldom losing a plant.

He makes two thinnings, the last time leaving but

three plants in a hill and when the main stems of vines are 12 to 15 inches high nip the ends, leaving four to six laterals or side branches to come, a sufficient number to carry all the fruit the vines are able to properly develop. He prunes again the ends of these laterals when their growth becomes rank, thereby hastening the fruit to maturity.

Everything possible should be done for the quick growth of the vine. A teaspoonful nitrate of soda is scattered around each hill—not on plants—when melon vines are 4 to 6 inches high; frequent stirring of top soil one or two inches deep to aerate soil and conserve moisture, as well as to keep down weeds, is very necessary. Before the vines commence to run much it is advisable to spread on a good coat of highgrade fertilizer, rich in phosphoric acid, along the rows between plants, and harrow in with cultivator.

A very important thing, and one that this grower has never seen done outside of his own grounds, is to go through vines when melons average the size of a cocoanut or thereabouts, and turn each one upside down, that is as large as an orange or larger. When this is not done the lower half is not as thick fleshed as the upper one, is softer and ripens first, is liable to rot and the shell may be penetrated by crickets and wireworms. Turning them over and exposing all parts alike to the sun adds also both to flavor and appearance.

He never picks melons till they part naturally from the vines, indicated by the cracking of the fruit around the stem, nature's way of telling us when they are weaned.

### VALUE OF LIQUID MANURE.

When the ground is thoroughly moistened to a considerable depth liquid manure may with advantage be applied to the roots of fruit-trees. The reason for this is that the soil, being full of moisture, it acts as a filter, so to speak, arresting and holding in suspension the manurial constituents present in the liquid while the residue or water passes on down to the subsoil. If applied in sufficient quantity to thoroughly saturate the ground beneath the trees, the soil then becomes considerably enriched, and the roots will, in turn, benefit to a large extent thereby. It should not be applied indiscriminately or to all trees alike, as it in some cases—for instance, trees full of vigor—would do more harm than good. Trees that do benefit by its application are such as make weak growth, and those which are in full bearing, while for trees that have, as a result of heavy and continuous cropping, begun to exhibit signs of exhaustion by a falling off both in the size and quality of the fruit, it acts as a wonderful restorative. Unless the liquid is very strong—in which case dilution is necessary—it can, now that the trees are, as far as growth is concerned, resting, be used as taken from the tank.

Not only should trees in the garden be given such attention, but it should be extended to those in the orchard, especially when the latter is in grass. In every case the liquid should be applied to as far as the branches of each individual tree extend, and sufficiently so that the soil is well saturated. If any difficulty in getting the liquid to sink in is experienced bore holes 2 feet deep and some 18 inches apart. On sloping ground the soil must be ridged up on the lower side to prevent the liquid running to waste. In some cases a kind of basin formed round the tree is also necessary to ensure the liquid reaching the roots.—

Exchange.

## Transplanting Large Trees\*

By C. E. Hunn, New York.

The transplanting of small trees is a comparatively easy operation, but when large trees are to be moved it is absolutely necessary to employ the professional tree mover, one who has the tools and the experience. The latter is of as great importance as the former. The modern tree moving machine, while of simple construction, has many complications as to levers, chains and ropes,



A TREE PLANTED BY YEARS AGO, IN TROCESS OF BEING TIPPED OVER ON TRUCK TO BE TRANSPLANTED

so that an amateur would be hopelessly puzzled in an attempt to manipulate it. At least one man with a thorough knowledge of the operation should be in charge of the removal.

Perhaps a brief statement regarding the removal of ten large elms on the grounds of the State College of Agriculture at Cornell University, may be of interest. These elms, set as young trees twenty-two years ago, had made a very thrifty growth and had begun to crowd each other. In the spring of 1912 it was decided that each alternate tree would have to be removed or cut down. In an attempt to save them these alternate trees (five in number) were root-pruned, digging to the depth of six to eight feet, cutting off all roots, leaving a ball of earth and roots eight feet in diameter. The soil was then thrown back into the

trenches, filling up to the former level. No check of growth was apparent through the summer, and it was planned to attempt the removal of these root-pruned trees through the following winter with a ball of frozen soil as is often done with younger and smaller trees. Before this could be accomplished, however, it was found that because of the location of a new building the entire row of ten trees would have to be moved. It was then determined to call in the services of a professional tree mover. The moving of these trees was accomplished during May of last year under the direction of the Landscape Art Department of the College.

The removal of the trees which had not been rootpruned the previous season was a much more particular and delicate operation than that of the prepared trees. Since the ball had not formed it was necessary to dig the soil away from the roots, saving all the fibrous roots possible by using spading forks or blunted sticks in order not to bruise the tender roots. As the bundles of roots were exposed they were tied together and the end of the cord fastened to the tree trunk to keep them out of the way. After all the roots possible were freed from the soil the tree was attached to the moving truck and gradually tipped over onto the truck by means of four guide ropes and pulley blocks which were used both in lowering and raising the trees. The roots were covered by canvas to protect the delicate fibrous roots which might be withered by exposure. The tree was then ready to be moved to its new situation where the hole had been previously dug. The size and depth of these holes varied according to whether the tree had been root pruned or not and also on the character of the root system. The trees were lowered into the holes and as the earth was being packed around the base the bundles of roots were held so as not to be buried too deeply. Then they were carefully spread out and fine earth packed around them, covering them to a depth of about four inches.

As fast as these trees were set the soil around them was soaked with water to settle and compact the dirt around the roots; and as often as the soil appeared dry through the summer, copious waterings were given. A



\*From Tree Talk, to which we are also indebted for

illustrations.

mulch of coarse strawy manure was used through the heat of the summer to good advantage.

At the close of the season the results were as follows: The five root-pruned trees were apparently as vigorous as before; three of the unpruned trees showed the shock of removal, but held their leaves well into the fall and new buds were made for next year, while two of the latter ones due to a certain extent to the condition of the soil in which they were planted, were in bad condition and there is but small hope of saving either of them.

Even with the loss of these two trees we will have a somewhat mature quadrangle in a very short time instead of waiting for the growth of young trees.

Had the moving of these trees been started in April, better success might have been had as the trees were developing their leaves when the work was begun, and before the last trees were moved they were practically in full leaf. Root-pruning one year, or still better two years, before moving, and early spring start and an experienced foreman should insure success in the moving of large trees, and where quick effects are desired, it surely pays.

### HOW TO CARE FOR CUT FLOWERS.

Even when scarce, we do not like to be without flowers of some kind, and therefore the methods of treatment recommended for keeping the blossoms fresh and beautiful and prolonging their lives to the utmost limits should be known, writes Sara Palmer in *The Queen*.

Unless they have only just been gathered, the extreme ends of the stems should be cut off before they are put into water, the newly-cut end, having its porce and vessels open, being in a better condition to absorb the water necessary to prevent the flowers from drying and withering, especially if they are to be put into a warm room.

If the stalks are at all woody the bark should for the same reason be stripped off for some distance from the end, and all thick stems, whether woody or not, should be split across in two directions, to open them up. It is a mistake from the economic no less than from the artistic point of view to crowd too many flowers into bowl or vase, as the massing close together of the stems promotes decay and causes drooping and withering of the flower stems.

Extremes of heat and cold are bad as a rule for any cut flowers, and therefore, the daily fresh water for the flowers, especially for the more delicate blossoms, should be left in the room all night, to become of the same temperature, and so be ready when the stale water is poured away next morning, and any dead leaves picked off. It is a good plan to cut a tiny piece from the ends of the stems and wash them if they show any signs of decay each day when changing the water, but this is not necessary so often if some preservative is put into the water each time. Powdered charcoal is very good, keeping the water fresh and pure. A layer should be put at the bottom of the vase and the flower-stems stuck in it.

Other preservatives recommended are carbonate of soda, saltpetre, nitrate of soda, camphor, a little of either being dissolved in the water every time. Many florists who have to take the utmost care of fragile blossoms during the winter add about a teaspoonful of gin to each jar of cut flowers to keep them fresh.

When flowers have become withered they may often be revived by cutting the ends and plunging them immediately into absolutely boiling water. If they are not too far gone the wrinkled petals will begin to smooth out in a few minutes, and freshness be more or less restored by the time the water is cold, when the stems should be cut again, any wetted part being entirely removed, and the flowers put into fresh cold water. A little gin or carbonate of soda in the hot water often aids the freshening, especially in the case of violets, which should be plunged up to the flowers in warm water before the bunches are untied.

Generally speaking, colored flowers can be more perfectly restored than white ones, which tend to become yellow or else semi-transparent, and, as might be expected, the thicker and more "fleshy" the petals the better the chance of revival, which is possible even though the flowers have been out of water for many hours.

To prevent large blossoms, e. g., tulips, from opening too widely, thus losing some of their beauty and tending to drop quickly, a little soft tissue paper may be wrapped round each blossom at night and removed next morning. The falling may often be retarded by dropping a little gum into the centre of each flower, a device especially useful for those which are rather full blown when plucked.

## THE GARLAND FLOWER.

(Daphne Cneorum.)

It cannot be said that this sweet-scented, hardy plant is in the full sense of the word popular. In the gardens of the wealthy it usually finds a place, but from villa and moderate-sized gardens it is conspicuously absent. There is good reason for this neglect. This Daphne is not so easily pleased in the matter of soil as is the case with the generality of hardy plants. In my natural soil it will not live for any time, writes J. Cornhill in Gardening Illustrated, and I, therefore, have to make, by means of loam and some leaf-mould, a rooting medium. In spite of this, it is necessary to replant at certain intervals, as the natural staple will in time assert itself, and the Daphne, thrusting its roots deeply into the ground, gets through the prepared soil into that which is not congenial. I once planted about a score of rather small pieces, the result of dividing a couple of strong plants, in about half a load of soil which I had prepared with much care. These plants throve amazingly and were a perfect picture. I have never since had the same success, probably because I have not taken the same pains.

I am not decided as to the comparative merits of autumn and spring planting. Much probably depends on the nature of the soil, and not a little on situation. With good drainage, such as on rockwork, autumn planting would be preferable, otherwise March would be the best time. Plants put in on the level are apt to suffer in a very wet winter. There is one thing about spring planting that, should the weather be dry, with cutting winds, the bark is apt to shrivel, with the result that there is a check from which recovery is slow, or the plant dies outright. The remedy is to protect slightly—a bough from which the leaves have fallen is a good thing. In the case of those plants which did so well I top-dressed annually with a mixture of peat and leaf-mould, which causes roots to issue from the base of the stems,

### INTERNATIONAL GARDEN CLUB.

By securing the Bartow Mansion with its thirty acres of land from the city of New York, the International Garden Club has obtained a most desirable property to carry out the purposes for which the club was formed, namely: to establish and maintain a horticultural garden, which may in time compare favorably with the world re-

nowned Kew Garden in England.

The old Bartow Homstead and its grounds consisting of some thirty acres are located in Pelham Bay Park, just beyond the Zoological Garden. It it easy of access by various roads from the center of New York City. The possibilities for development along the lines outlined by the International Garden Club are unlimited. The time appears to be a most opportune one to promote the work. The interest in horticulture is growing in this country and there are no doubt a large number of people in the vicinity of New York who would avail themselves of the privileges of an institution such as is proposed.



INTERNATION M. GARDEN CLUB HOUSE, PELHAM BAY PARK, NEW YORK,

One of the aims of the club is to make it a headquarters for all garden interests. It intends to establish a complete horticultural library; another aim is to make its gardens of intrinsic value to garden lovers in the knowledge it will furnish in the cultivation of garden plants, and the general information it will impart on garden work, through educational departments to be maintained for that purpose.

Flower shows at regular intervals and a series of lectures in the club house are among the contemplated plans. The club house is to be opened to the members about

May 1.

In the treasurer's report, dated January 25, 1915, a total membership of 336 is shown. The financial report showed the organization in splendid financial condition to proceed with the work it has undertaken.

### LENTEN LECTURES ON GARDENING.

Women's interest in gardening has been so aroused, that at the first of a series of lenten lectures on "Intimate Talks of a Successful Amateur," given in a home in New York City, of spacious accommodations, the audience was

so large that more than half of those who applied were turned away, necessitating the securing of a hall for the remainder of the lectures.

The lecturer, Mrs. Herbert Spencer Harde, is an enthusiastic amateur gardener, with a country place in Massachusetts, and she is rendering her series of lectures for the benefit of the International Child Welfare League. The subjects of her talks, as she terms them, are: "A Yellow Rose Garden in the Making," "Deciduous Shrubs and Shrubbery," "Harmony in Gardens Large and Small" and "Distinction in Rose Gardens."

Mrs. Harde calls gardening "a slavery of the love of and work for flowers, but a sweet slavery," which, she says, even music does not equal. She regards gardening a better recreation than outdoor games and urges women to indulge in it as the work means youth, health and strength for a woman. Harmony in color, Mrs. Harde believes, is one of the fundamental principles of successful gardening, in which natural effects should also not be

ignored.

There are, however, some points on which we cannot agree with the lecturer, one of which is that there is no distinction between low and high grade plants—that there is no difference in value between the plant selling at a few cents and that running up in the dollars in price. Those who have grown both kinds will endorse our opinion that the difference is decided.

"It is a splendid thing to know about gardening if for nothing more than to know what one's gardener does. Think of a first-class gardener, a diploma man, doubling back the roots of a valuable rose he is going to plant instead of spreading them out!" says the lecturer. Any gardener who would commit such an act and is in possession of a diploma is in the same position as many other college men who have acquired their degree in law, theology or medicine and when they proceed to practice their calling prove themselves entirely unfitted for it. Too many of us are wont, however, to judge a profession by the shortcomings of some individuals within it;

whereas the profession does not choose for us whom we employ, but in most instances it is of our own selection.

# AMERICAN RED CROSS AT NEW YORK SPRING FLOWER SHOW.

A unique and what will probably prove to be one of the most attractive features of the New York Spring Flower Show, will be the tea garden conducted by a number of New York's prominent society women. It will be in the nature of a pergola, constructed across the entire width of one end of the Grand Central Palace. The decorative effects have been arranged by Mrs. Belmont Tiffany, Mrs. A. S. Burden and William A. Delano, and no efforts nor expense have been spared in making the tea garden the most elaborate setting, from an artistic viewpoint, that has ever been attempted for a public benefit. The garden will be in charge of different committees each day of the flower show, and the society women, assisted by the younger set, will daily serve tea while their patrons may indulge in dancing afternoons and evenings. Commercial and private growers have contributed liberally with plants and flowers for decorative purposes, and hotels and caterers will contribute the foodstuffs.

The proceeds of the benefit will go to the American Red Cross and the Non-Combatant Committees.

On Wednesday, the opening day, the New York County Chapter of the American Red Cross and the Committee of Mercy will be in charge of the tea garden.—On Thursday the garden will be in charge of the Brooklyn Chapter of the American Red Cross and the American Committee of the Secours Nationale.—The Westchester County Chapter of the American Red Cross and the American Polish Relief Committee will preside over the garden on Friday.—On Saturday the Bronx Chapter of the American Red Cross and the Belgian Relief Committee will take charge. —On Sunday the garden will be given over to the Vacation War Relief Committee and a Servian Relief Committee.—On Monday the British War Relief Committee, together with the American Hotels Committee for Refugees in Paris, will be in control.—On Tuesday the Riverdale-Spuyten Duyvil-Kingsbridge Committee of the American Red Cross and the German Relief Committee will assume charge.

### HORTICULTURE IN PITTSBURGH.

That the superintendent and foremen of the conservatories in connection with the city's Bureau of Parks are giving practically undivided attention to preparations for their respective Easter Shows, almost goes without saying. John W. Jones, of the Phipps' Conservatory, Schenley Park, who makes almost a religion of experimental work, is enthusiastically working away with his force of men in the cause of Dutch bulbs, flowering shrubs, roses, orchids, and all the various other floral beauties of the season that go to delight his thousands of guests at this season.

James Moore, of the West Park (old Allegheny), North Side, is giving special attention to the transformation of the aquatic house into a Gentlemen's Country Place, intended as a surprise for his large coterie of young school and kindergarten friends. This feature is being ingeniously fitted out with a wonderful spray fountain and the various outbuildings and "alfresco" accessories that go to make up the ideal place of its kind.

The H. J. Heinz Conservatory in the rear of "Green Lawn" the residential grounds in Penn avenue, East End, is the only private greenhouse now supporting semi-annual shows; it is also open to visitors every afternoon of the year. The main range, erected six years ago, includes nine houses, with an additional "Show House," new last year. A. A. Leach, the head gardener, is a comparatively young man, a native of Mt. Clemens, Michigan. Notable among his large and varied collection were some exceptionally fine examples of Christmas-red begonias and camellias in full bloom, and schizanthus just beginning to flower. When seen on March first Mr. Leach's fan-trained peach trees were a mass of pink, and his strawberries were nearly ready to bloom.

Both the Alexander R. Peacock and the H. C. Frick greenhouses, which formerly made special provision for the public at Easter and Thanksgiving, have of recent years abandoned this custom. David Fraser, who has presided over the Frick place for eighteen years, ships semi-weekly consignments to the New York mansion throughout the winter and spring, practically supplying its cut flowers. He has about regained his normal health, following his serious illness of the fall and early winter. Although naturally of robust physique, Mr. Fraser suffered seriously from over exertion in rowing, while spending his vacation at "Eagle Rock," the Frick's summer home at Pride's Crossing, Mass.

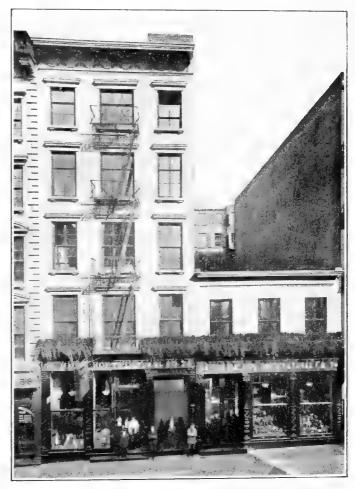
The ten acre estate of Richard Beatty Mellon—the largest and most extensive in the city—is under the man-

agement of Ernest Guter, who, prior to entering Mr. Mellon's service thirteen years ago, lived in St. Louis. Although a landscape artist was originally engaged to supervise the laying out of the present grounds three years ago, Mr. Mellon and Mr. Guter soon thereafter took complete charge and are really directly responsible for the splendid results attained. In addition to the green house range, there are cold frames, a house conservatory and an Italian garden; the garden is said to be one of the finest of its kind in the country. Mr. Guter's hobby is quality rather than quantity.

### THE MACNIFF CO.'S NEW ANNEX

The old adage "There is always room for one more in business," is exemplified by the new mammoth annex of the MacNiff Horticultural Company which has just been completed and opened to the public for its first auction sale of the Spring season on Tuesday, March 9, last.

This company, which has earned an excellent reputation for itself in the few years it has been in business, began its life in September, 1910, in the store at 62 Vesey street, where it remained until January, 1913, when it felt the need of larger quarters and leased the five-story building at 56 Vesey street, occupying all of its five floors and basement. It expected that in this building it would have sufficient space for some years to come, but it again found that the rapid growth of its seed department demanded more floor space and so it leased the plot of ground adjoining its present building and there erected a two-story structure in the nature of a large show room, the height from floor to ceiling being thirty feet, which will enable them to exhibit large specimen plants, such as Palms, Bay trees, etc., to the best advantage.



MeNIFF HORTICULTURAL CO. BUILDING AND ANNEX.

### NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st., N. Y.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society.

L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society.

A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 342 West 14th st., N. Y.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

### LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. First Thursday every month, Horticultural Hall, Bernardsville, N. J.

 $\begin{array}{ccc} \textbf{Boston Gardeners' and Florists' Club.} \\ William & N. & Craig. & secretary. & Brookline. \\ & Mass. \end{array}$ 

Third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Second and fourth Fridays every month, County Building, Hartford, Conn., S p. m.

Dobbs Ferry Gardeners' Association. Henry Kastberg, secretary, Dobbs Ferry, Geo, W. Strange, secretary, 216 Main street, N. Y. Orange, N. J.

First Saturday each month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls, N. Y.

Second Wednesday every month except May and June, Poughkeepsie, N. Y.

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. First Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke

and Northampton, Mass.

James Whiting, secretary, Amherst, Mass. Second Tuesday every month.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Paterson Park, Baltimore, Md.

Second and fourth Monday every month, Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New

York City.
Monthly, irregular, May to October, New
York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. First and third Saturday every month, Oct. to April; first Saturday every month. May to Sept., Horticultural Hall.

#### Lenox Horticultural Society.

G. H. Instone, secretary, Lenox, Mass. First Saturday every month.

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary, Los Angeles, Cal. First Tuesday every month.

Massachusetts Horticultural Society.

William P. Rich (secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society.

Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Fourth Friday every month, Red Bank,

Montreal Gardeners' and Florists' Club.

W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Morris Country Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J.

Second Wednesday every month, except July and August, 8 p. m., Madison, N. J.

Nassau County Horticultural Society. James Gladstone, secretary, Glen Cove, N. Y.

Second Wednesday every month, Pembroke Hall, 6 p. m.

New Bedford Horticultural Society.

Jeremiah M. Taber, secretary, New Bedford, Mass. First Monday every month.

New Jersey Floricultural Society.

Orange, N. J.

First Monday every month, Jr. O. W. A. M. Hall., 8 p. m.

New London Horticultural Society.

John Humphrey, secretary, New London, Conn.

Second Thursday every month, 38 Main st.

Newport Horticultural Society.

A. K. McMahon, secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club.

John Young, secretary, 54 W. 28 st., N. Y. Second Monday every month, Grand Opera

North Shore Horticultural Society.

Jas. Slater, secretary, Manchester, Mass. First and third Fridays every month.

North Shore Horticultural Society. F. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society.

Third Thursday every month, except June J. B. McArdle, secretary, Greenwich, Conn. to August, at 8 p. m.: December to Februs Second Friday every month Doran's Hall ary, 3 p. m. ary, 3 p. m.

Oyster Bay Horticultural Society.

A. H. Kennedy, secretary, 156 West 31th street, New York.

Fourth Friday every month, Oyster Bay, N. Y., 8 p. m.

Pacific Coast Horticultural Society.

W. A. Hofinghoff, secretary, 711 Westbank Bldg.

First Saturday every month, Redmen's

Pasadena Horticultural Society.

Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month.

Paterson Floricultural Society.

Sebastian Hubschmitt, Jr., secretary, 61 Seventh ave., Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society.

David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

Third Tuesday every month, Horticul tural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut st., Paterson, N. J.

First and last Friday every month, Working Man's Institute, Paterson, N. J.

Philadelphia Florists' Club.

David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

First Tuesday every month. Horticultural Hall, S.p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. First Thursday every month, Fort Pitt Hotel.

Rhode Island Horticultural Society.

A. C. Miller, secretary, Providence, R. I. Fourth Monday every month, Public Library, 8 p. m.

Shelter Island Horticultural and Agricultural Society.

First and third Thursday's every month.

Southampton Horticultural Society. William McLeod, secretary, Southampton, N. Y.

First Thursday every month, Memorial

Tarrytown Horticultural Society.

E. W. Neubraud, secretary, Tarrytown, N. Y.

Last Tuesday every month, 7:30 p. m.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y.

First Wednesday every month.

Washington, D. C., Florist Club. J. L. Mayberry, secretary Washington, D. C.

First Monday every month. Yonkers Horticultural Society.

Vonkers, N. Y. Thos. Mahoney, secretary, Youkers, N. Y. First Friday every month, Hollywood

Inn., 8 p. m. Westchester and Fairfield Horticultural

Greenwich, 8 p. m.

### GARDEN CLUBS

International Garden Club.

Miss Mary M. Kearney, secretary, 123 East 53rd street, New York Club House, Bartow Mansion, Pelham Bay ber at Lenox.

Park, N. Y.

The Garden Club of America.

Mrs. J. Willis Martin, president, 1721 Locust street, Philadelphia, Pa.

Woman's National Agricultural and Horticultural Association.

Mrs. Susan II, Vollmer, secretary, Huntington, N. Y.

The Garden Club of Alma, Mich.

Mrs. E. J. Lamb, secretary, 803 State street. Twice a month at members' residences.

The Garden Club of Alleghany County, Pa. Mrs. F. H. Denny, president, Sewickley, Pa.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich.

Miss Annie Coudon, secretary, 920 University avenue.

The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle, secretary, Gladstone,

N. J. Second and fourth Thursdays, middle of April to November. August excepted.

The Garden Club of Cleveland, Ohio.

Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Mrs. F. K. Holister, secretary, East Hampton, N. Y.

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood,

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob. Conn.

At members' residences.

The Garden Club of Detroit, Mich. Mrs. And. H. Green, Jr., secretary, 813 Jefferson avenue.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson P. O., Md.
First and third Thursdays, April to

December at members' residences.

The Gardeners of Mont. and Dela. Counties,

Pa.
Miss Elizabeth D. Williams, secretary, Haverford, Pa. At members' residences.

The Weeders' Club, Pa.

Miss Ellen Winsor, secretary, Haverford,

First and third Wednesday at members' residences.

The Garden Club of Lake Forest, Ill. Mrs. Tiffany Blake, president. Lake Forest. Ì11.

The Larchmont Garden Club, N. Y. Mrs. Edgar Park, secretary, Larchmont, N. Y. First Thursdays.

The Garden Club of Lawrence, L. I.

Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass.

Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York.

First and third Mondays, June to Octo-

The Garden Club of Litchfield, Conn.

Mrs. Henry S. Munroe, secretary, 501 W. 120th street, New York.

Second Friday, June to October at Litch-

The Garden Club of Michigan.

Miss Sarah Hendrie, secretary, Grosse Pointe Farms, Mich, Once a month. Two Spring and one Fall

Shows.

The Millbrook Garden Club, N. Y.

Mrs. Keyes Winter, secretary, 125 E. 78th Miss Anne MacHvaine, secretary, Trenton, street, New York.

Meet at Millbrook, Dutchess County, N. Y.

Bi-monthly meetings at members' resi-

The Bedford Garden Club, N. Y.

Mrs. Benjamin W. Morris, secretary, Mt Kisco, N. Y.

The Garden Club of New Canaan, Conn.

Mrs. Francis H. Adriance, secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I.

Miss Dorothea G. Watts, secretary, New-Mrs. C. Shirley Carter, secretary, Warrenport, R. I.

Annual Meeting, August. Others when called. Five monthly summer shows,

The Newport Garden Club.

Mrs. Chas. F. Hoffman, president, 620 Fifth avenue, New York.

The Garden Club of New Rochelle, N. Y. Mrs. Lucius W. Hitchcock, Premma Point Park.

Members residences and Public Library.

The Garden Club of Norfolk, Conn.

Philemon W. Johnson, secretary, Nortolk, Conn.

Second Wednesday each month at Public Library.

North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa.

Miss Ernestine A. Goodman, secretary, Chestnut Hill.

The Garden Club.

Mrs. Aubrey Pearre, Jr., secretary, Pikesville. Md.

The Garden Club of Ridgefield, Conn.

Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York.

Twice monthly at Ridgefield. Also exhibitions.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md.

The Garden Club of Rye, N. Y. Mrs. Samuel Fuller, secretary, Rye, N. Y. First Tuesdays, April to October. Also special meetings and Flower Shows.

The Garden Club of Seabright, N. J. Mrs. H. L. Cranford, secretary, Seabright, N. J.

The Shedowa Garden Club, New York.

Miss Mary Young, secretary, Garden City, N. Y.

Second Wednesday each month at mem-ers' residences. Vegetable and flower bers' residences. shows, June and September. Correspondence with other clubs invited.

Short Hills Garden Club, N. J.

Mrs. C. H. Stout, secretary, Short Hills, N. J. Weekly at Short Hills Club House. Flower Shows April and June, and annual Dahlia Show.

The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W. 33rd street, New York.

Twice a month in summer at Southampton, L. L.

The Garden Club of Staten Island, N. Y. Miss Alice Austin, secretary, Rosebank, S. I.

The Garden Club of Trenton, N. J.

dences.

The Garden Club of Illinois.
Mrs. William G. Hibbard, Jr., secretary,
Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.

Mrs. Morris Rutherford, secretary, Warrick, Orange County, N. Y.

Warrenton Garden Club, Virginia. ton, Va.

## HORTICULTURAL EVENTS

International Flower Show, under the auspices of the Society of American Florists and Ornamental Horticulturists, Philalelphia, Pa., March 25 to April 2, 1916.

New York Spring Flower Show, Grand Central Palace, New York, March 17-23,

American Rose Society Annual Show, Horticultural Hall, Boston, March 18-21,

Massachusetts Horticultural Society Annual Spring Show, Horticultural Hall, Boston, Mass., March 18-21, 1915.

American Sweet Pea Society, Special Show, Panama-Pacific International Exposition, San Francisco, June 4, 1915. Annual Sweet Pea Show, Newport, R. I., July 8-9, 1915.

Horticultural Society of New York, Annual Fall Show, New York, November 47,

Pennsylvania -Horticultural Society. Spring Show, Horticultural Hall, Philadelphia, Pa., March 23-25.

American Gladiolus Society, Annual Show, Newport, R. I., August 18-19, 1915.

Chrysanthemum Society of America, Annual Show, Cleveland, Ohio, November 10-14,

Newport Garden Association and Newport Horticultural Society, Summer Show, July 8-9, 1915. Also monthly shows through the summer.

Newport Garden Club and Newport Horticultural Society, Midsummer Show, August 18-19, 1915.

# Shorburn's Seeds

# Our New Red Sunflower

O know our "New Red Sunflower" is to love it. For tall borders and in shrubbery it is most effective. Its six feet of height are full of grace and distinction, whether on a large or small place.

The illustration below gives but a faint idea of its real beauty, which lies much in its brilliant coloring: dark center with petals of bright, rich red, merging to yellow at the tips.

Whether you grow for pleasure or front we wart you to grow this wonderful flower this year, and will send a generous package of the seed and our 1915. Spring Catalogue (of 144 pages), for ten cents in stomach, and more years and the second 
Write us also recording larger

# J. M. Thorburn & Co.

53U Barclay St., through to 54 Park Place, New York



WESTCHESTER (N. Y.) AND FAIRFIELD (CONN.) HORTICULTURAL SOCIETY.

The annual entertainment and dance was held in Mechanics Hall, Stamford, Count. on Thesday evening, February 16, and was a great success. A pleasing program was rendered and heartily applauded, the members, together with their wives, ramilies and friends, including a large representation from leading seed houses and nursery firms. formed a large and jolly family party, who were welcomed by the president of the se-

ciety, W. J. Scaley.
Mis. James W. Stirling who possesses a wenderfully sweet voi.e. sang Scotch ballads and was repeatedly encored. Owen A. Hunnick sang some old-time favorites in a finished manner. Prot. Wilson, Scotch co median, in all the glory of his "Hieland" costume, delighted the audience with character songs and dances. The talented son of James Foster rendered violin solos in a very artistic manner. Prof. Melcher amused and delighted both old and young with a program of clever and mystifying feats in sleight o' hand. Various sentimental, classical, topical and popular songs were sung by the Hon. John M. Brown, mayor of Stamtord, and by Messrs, W. J. Collins James Johnston and A. L. Rickards, who were all heartily applauded.

An excellent buffet lunch was served, also a plentiful supply of fruit and candies to the little folks. The grand march was led by James Stuart and wife. James Johnston was floor manager, assisted by Alex. Clarkson. A varied dance program was provided and thoroughly enjoyed by everybody on account of the fine orchestra in attendance. This annual entertainment will long remain P. W. TOPP. a pleasant memory.

### LENOX (MASS.) HORTICULTURAL SOCIETY.

The regular monthly meeting was held on Wednesday, February 10. After a few minor changes in the schedule for the coming fall exhibition had been proposed and adopted, an interesting and instructive lecture was given by Professor J. A. Foord, of Massachusetts Agricultural College on "Some Principles of Farm Management." A well-attended meeting of members and local farmers accorded Mr. Foord a unanimous vote of thanks, who in reply invited those present to take a trip to Amherst, and so get a better insight into the work which the college was attempting. J. CARMAN,

Assistant Secretary.

### MENLO PARK (CAL.) HORTICULTURAL SOCIETY.

Thursday night, February 11, was installation night of the Menlo Park (Cal.) Horticultural Society, and brought an attendance of forty members. The following are the off-cers installed: H. L. Goertzhain, president; D. W. Slade, vice-president; P. Ellings, secretary; G. Nunn, treasurer; T. Templeton, trustee for three years; P. Copp and J. Aiken, ushers. P. Ellings, D. Bassett, J. M. Daly, G. Nunn and D. W. Slade were elected on the Exhibition Committee for the year. Mr. G. Ward was installation officer, and impressed very forcibly with witty remarks his particular duty on each officer. Refreshments were enjoyed by the members.

The society decided to hold a spring show the date to be decided later. No cash prizes will be awarded and admission to the public will be free. The society felt that it would be a big boost for the fall show, which we are striving to make the best ever held on the peninsula, as three fourths of



# RADIUM MAKES THINGS GROW

Take a high class territion and add to the Rismur Llemont in 18st the right proportion and year mare the deal plant food Radium. Band. Pertiliber (RAT), Apply it according to discretions and year flowers will bloom rate to autifully year vegetables give greaterly eld your laying will binary years, above, yet activis its feltage and bloom. Put it in Lamby packages for mall users. One It will tertilize 50 sq. 11. surface, or a plot for it by 5.41.

# RADIUM

is the construction of the

### Sample Can, Prepaid, 25c

Radium Brand Pertilizer (RAT) as sold by flor fists, growers, druggests and seed not hardware dealers. If your dealer can not supply you send us his name and 25 cents for can (12 oz het RAT) prepaid. Also, sold as follows, preprid, whore dealers can not simply you.

where dealers can not supply you;

tells how

makes things

2 lb. can . . . 50c 10 lb. can . \$1.75 5 lb. can . \$1.00 25 lb. can . \$3.75

In writing always to sare to give us your dealer's nam, so we can arrange for your future supply.







### STEEL STANDARD SETTEE

Manufactured in any length INDESTRUCTIBLE - COMFORTABLE Write for prices, advising requirements

Steel Furniture Co. 1490 So. Buchanan Ave.
GRAND RAPIDS, MICH

and show the transfer of the continuous manufactures of the continuous contin

sharpening device furnished.

the show places of California are all within thirty miles of Menlo. There were several fine exhibits for the monthly competition. In Class A (greenhouse grown) D. Bassett secured 90 points for a very finely flowered cyclamen in an 8-inch pan; P. Ellings, 85 points for two vases of freesias. Purity and Leichtlinii Major: A. Bearsby, 75 points for a 7-mch pot of hyacinth. In Class B coutside grown) J. M. Daly 90 points for a dish of magnificent peas. G. Munn. 80 points for a very fine head of brocoli.

Mr. Lackerlin, Mr. Ward and Mr. Cruikshanks were the judges

P. ELLINGS, Secretary.

### THE HORTICULTURAL SOCIETY OF NEW YORK.

An exhibition of plants and flowers was held on Wednesday, February 17, at the American Museum of Natural History. Unusually fine displays of cut orchid blooms were made by Mr. Clement Moore and by Messrs, Lager & Hurrell. The exhibit made by Mr. Moore was very rich in Cattleya forms, one of the most interesting being a cross made and reared by himself from Cattleya Dowiana x C. Schroederae. The display of Lager & Hurrell was rich in genera and species. Much interest was added to the exhibit by the numerous displays of plants and flowers for which no premiums had been provided in the schedule. Special prizes were awarded to many of these.

A business meeting of the society took place at 3:45, followed at 4 by an illustrated lecture by Mr. W. C. McCollom on "The Small Greenhouse: Its Use and Abuse." This was of great interest, and many practical methods were described by the lecturer.

The next monthly exhibition of the society will be held on Saturday and Sunday, May 8 and 9th, at the New York Botanical Garden, Bronx Park. The usual March exhibition is omitted on account of the spring show at the Grand Central Palace. The April show is also omitted, as it would follow too closely upon the big spring show.

The following premiums were awarded at the exhibition of February 17:
Vase of schizanthus: Henry Goldman, Deal Beach, N. J., Anton Bauer, gardener. first; G. D. Barron, Rye, N. Y., Jas. Limane, gardener, second.

Vase of snapdragons: Mrs. F. A. Constable, Mamaroneck, N. Y., Jas. Stuart, gar-

dener, first.

Vase of 50 freesias, arranged for effect: Henry Goldman, first, G. D. Barron, second.

Three vases narcissus: Mrs. H. Darlington, Mamaroneck, N. Y., P. W. Popp, gardener, first.

Collection of cut orchid blooms, commercial class: Lager & Hurrell, Summit, N. J.,

Collection of cut orchid blooms, non-commercial class: Clement Moore, Hackensack. N. J., J. P. Mossman, gardener, first.

Vase of 50 roses, arranged for effect: Mrs.

F. L. Constable, first.

The following special prizes were awarded: Mrs. H. Darlington, for display of bulbous flowers, cash; Bobbink & Atkins, display of flowering shrubs, silver medal; G. D. Barron, display of cyclamens, cash; Ernest Iselin, New Rochelle, N. Y., Wm. Whitton, gardener, for display of two vases of Darwin tulips "Pride of Haarlem" and vase of Lilium formosum, cash, and cultural certificate for the lilies; Henry Goldman, for vase of stocks "Empress Augusta Victoria," cash and cultural certificate: Clement Moore, for display of new hybrid Cattleya, a cross between C. Dowiana and C. Schroederae, silver medal; Mrs. A. J. Moulton, West Orange, N. J., Arthur W. Jackson, gardener, for display of freesias and





A smaller machine—the Ideal Junior Power Lawn Mower for smaller lawns—sells for \$225

It will then presents a problem, write for catalog describing Ideal Power Lawn Mowers.

THE IDEAL POWER LAWN MOWER CO.

R. E. OLDS, CHAIRMAN

419 Kalamazoo St., Lansing, Mich.

# The Highway to Perennials Leads straight Palisades Nurseries

For Old Fashion Gardens and Hardy Borders

There you will find all kinds and you can take your pick from the best that grow. Perennials and a feeling of permanency to your home surroundings. They change their plumage but not their face, and keep reflecting the seasons all the year around. Our motto—Maximum quality at Minimum Cost. Write.

THE PALISADES NURSERY

SPARKILL, N. Y.

# Many Nurseries Have Advertising But Moons Have The Goods



 $\label{eq:lambda} A \ block \ of \ Norway \ Maple \ 2^{3}\ 2 \ to \ 3^{-}, \ inches \ in \ calibre. \ This lot \ of \ superlative \ excellence \ offered \ for \ April \ delivery$ 

**F**OR our headline we owe apologies to St. Louis, where they say, "Many cities have their slogan, but St. Louis has the goods." This heading is especially appropriate for our advertising, because what we catalog we have.

Ours is a Nursery where we raise what we sell to a greater extent than is customary. The accompanying pictures speak a plainer story than words. Let us only add that you mail Moons your Tree and Shrub lists for prices and ask for our catalogs in which Superintendents and Gardeners will be especially interested, because of the fund of information they contain about Hardy Trees and Plants for Every Place and Purpose.



Pyramidal Arborvitae, 4 to 5 ft. Each tree a well-developed specimen and frequently transplanted. We have just as large stocks of American Arborvitae, Pines and Retinosporas.



"Made in America" applies to Moons' Evergreens. Only a few are imported, as we find tender, exotic species undesirable and prefer to raise our supply from stock of proven hardiness.

# THE WM. H. MOON COMPANY

Philadelphia Office: Room "G", 21 S. Twelfth St. Established 13 Years
450 Acres 2200 Varieties

Ferry Road Morrisville, Pa. tulips, cash; Mrs. F. A. Constable, for vase of Darwin tulips "Wm. Copeland," cash, GEORGE V. NASH, Secretary.

### THE MEDFORD (MASS.) HORTICUL-TURAL SOCIETY.

At the monthly meeting of the Medford (Mass.) Horticultural Society on February 23, Wm. N. Craig of Brooklyn gave a lecture on "The preparations of soils for spring planting; how, when and what to plant. Mr. Craig spoke for about an hour, strongly condemning the slipshod manner in which farm and garden soils are quite often prepared for planting. His remarks on insects and other pests, with remedies for combating them, were especially instructive. His experience with various manures and fertilizers, in the growing of crops and dressing of lawns, was one the members of the society were greatly interested in, as they had discussed the question at previous meetings. Mr. Craig answered questions for nearly an hour after his lecture, on troubles in the garden.

GEORGE F. STEWART.

# OYSTER BAY (N. Y.) HORTICULTURAL SOCIETY,

The monthly meeting of the Oyster Bay (N. Y.) Horticultural Society was held in Fireman's Hall, Oyster Bay, on February 25. President Jos. Robinson called the meeting to order and there was a good attendance. John Sorosick reported for the entertainment committee that ladies' night was a great success. The Rev. Charles J. Canavan was elected to associate membership, and Robert S. Renison, of Westbury, an active member. The exhibition tables were loaded with cut flowers and plants, there being seventeen displays besides the many entries for the monthly prizes. James Duthie won all three of the monthly competition prizes. "For exhibition only," the awards were as follows: Jos. Robinson, one specimen azalea, C. C.; J. Ingram, one vase callas, C. C., three vases cattleyas, II. M.: A. Schoding, two lots lilium formosum, C. C., one vase annual larkspur and collection tulips, II.
M.; F. Kyle, two P. obconica, H. M.; J.
Duthie, P. malacoides improved, C. M., one cyclamen, H. M.; H. Gibson, cucumbers and one vase roses, H. M.: Chas. Mills, string beans, H. M., roses and tulips, V. T.; J. Sorosick, one vase roses, H. M. The judges were Messrs. Proctor, Humphreys and Beaton. The executive committee printed preliminary schedules for the 1915 shows, which were accepted and are now ready for distribution.

ANDREW R. KENNEDY, Secretary.

# CONNECTICUT HORTICULTURAL SOCIETY.

It was a gorgeous sight that met the eye on entering the society's room in the County Building, Hartford, as John F. Huss, of Hartford, and George B. Baker, of New Britain, staged some twenty-four fine specimen cinerarias. The cactus cineraria was particularly attractive. The judges awarded the exhibit of Mr. Huss a first class certificate, and that of Mr. Baker a cultural certificate, which was duly ratified by vote of the members.

We had with us on this occasion Maurice Fuld, of New York, who gave a most interesting and edifying talk on roses. He addressed the amateurs particularly. The meeting did not adjourn until 10:30. The next meeting, March 12, will be "Carnation" night.

\*\*ALTRLD DIXON.\*\*

Se retary.

To state the first term of this three or helically state.

If you compared the proportionate amount of cubic feet of foliage of our large trees with the usual small ones, costing few dollars, ours were always cheaper, even at the old \$60 price.

SMALL TREES

And when it comes to small trees, we have a goodly supply from 6 inches up. Fine full-vigored stock such as this soil of ours produces when combined with Hicks growing and root pruning methods.

The prices on these are just what you

### TUXEDO HORTICULTURAL SOCIETY.

The usual monthly meeting of the Tux odo Horticultural Society was held in the Paris! House on March 5, President Fred-erick Rake in the chan. There was a burge attendance of members present. Two new members were elected, George Towner and Thomas Eastham. It was left in the hands of the executive committee to make arrangements for the ladies' evening, which is to be held early in April. A paper was read on Cmysanthenums by Thos. Wilson. It was Rose and Carnation night, and a fine lot of flowers vice staged, including one vase of new car action. Also and one vase of the new carnation Champion, and exhibits of daffodils, tulips, violets and primula malacoides. The judges made awards as as follows:

Six pink roses—1st, Thos. Wilson; 2nd, David McIntosh.

Six yellow roses—1st, Thos. Wilson; 2nd, Charles Davidson.

Six red roses 1st David McIntosh: 2nd. Charles Davidson.

Six white roses—1st, David McIntosh.

Six any color roses -1st, Charles Davidson: 2nd, David McIntosh.

Twelve red carnations—1-t, David Mc-Intosh.

Twelve dark pink carnations -1st, Willram Hastings; 2nd, James MacMachan.

Twelve light pink carnations-1st, James MacMachan.

Twelve any color carnations -1st, James MacMachan.

Six white carnations-1st. Charles David-

son; 2nd, David McIntosh. Six light pink carnations-1st, Thos. Wil-

son; 2nd, Charles Davidson.

Six dark pink carnations—1st. David Me-Intosh.

Six any color carnations -1st, Charles

Davidson; 2nd, David McIntosh.

Vase of carnation "Alice"—Certificate of merit, Peter Fisher, Ellis, Mass.

Vase of carnation "Champion" - Certificate of merit, Scott Brothers, Elmsford.

Vase of daffodil Glory of Linden -Certificate of culture, Thomas Lyons.

Vase of tulip Pink Beauty Certificate of culture, Thos. Wilson.

Two primula malacoides tertificate of culture, Thos. Wilson.

THOS. WILSON, Secretary.

### NORTHAMPTON, MASS., FLORISTS' AND GARDENERS' CLUB.

The regular monthly meeting of the Holyoke and Northampton Florists' and Gardeners' Club was held in E. J. Canning's office, Prospect Heights, February 16, and was well attended, twenty-two members G. H. Sinclair and George being present. Strugnell, of Holyoke, and F. D. Keyes & Son, of Florence, exhibited some remarkably well grown cyclamen plants. F. D. Keyes & Son also exhibited a vase of that fine new dark crimson carnation. Princess Dagmar. E. H. Downer, of the Smith College Botanic Garden, exhibited some beautiful plants and sprays of flowers of Schizanthus Wisetonensis. He also exhibited some finely grown cinerarias. Each of the exhibitors was awarded a first class certificate of merit. The exhibits provoked much discussion among the members and practically every minute detail of culture was brought one.

Frank Barnard, a former active member, sent a paper which was read by Mr. Sinclair, on the history and the quantity of plants and cut flowers at the A. N. Pierson plants and cut flowers at the A. plant at Cromwell, Conn., where Mr. Barnard is now located.

The March meeting will be held at the new Sinclair greenhouse, Smith's Ferry.

# If You Think Hicks Trees Are High-Priced, This Will Show You Are Mistaken



at a transfer of the state of t

HE first limited number of anything produced, whether it be trees or automobiles, is costly. As output increases, cost decreases. This is a well understood fact. It hardly seems worth mentioning, were it not that some people have failed to apply its principle to Hirks Nuistry.

For example: Twenty years ago we started growing big trees. Those first produced logically came high. But, even as long ago as that, sold freely, because of the novelty it was to successfully move big trees and produce almost overnight, results that it had always taken ten or fifteen years to accomplish by planting the customary small trees.

So great was the lemand for these big trees that for years we had difficulty in producing them fast enough. Very naturally, as with anything else, the cost kept up proportionately.

But now, with our enlarged planting areas and improved methods of growing, we have greatly increased our output of trees and correspondingly lowered the cost of producing them.

For example, a fine big maple that it used to be necessary to ask buy of us for \$40 would expect to pay for trees of their

\$ 60 tor, you can now buy of us for \$ 40 to \$ 50

big maple that it used to be necessary to ask would expect to pay for trees of their quality. And no more.

Especially fine Rhedodendrons we have in abundance; as well as shrubs and hardy flowers in large variety.

Come and see for yourself. Pick out just what you want. If you can't come, sen't for catalcg. We can safely ship, even our big trees, 1,000 miles.

GUARANTEE

Every Hicks tree is guaranteed to live and thrive satisfactorily or cheerfully replaced. Note that word cheerfully. We shall expect to either hear from you or see you here.

# Isaac Hicks & Son Nursery, Westbury, L. I.



# AMERICAN ROSE SOCIETY—SPRING EXHIBITION

Sixteenth Annual Exhibition of the American Rose Society, March 18 to 21, inclusive, in conjunction with the Massachusetts Horticultural Society. The fine half of the society is the place of meeting. There promises to be some choice exhibits. Massachusetts has a local pride in this Country and local people are doing them hest to make a fine showing.

to make a fine showing.

On Thursday the 18th instant by noon time the pots and tubs will be staged, the next day, Friday, the cut blooms.

The Schedule Committee Messis, Louis J. Router, Alexander Montgomery, and Thomas Roland have done good work in fixing prices; the special prizes are liberal. The final list, except for any additional prizes, is now distributed and entry blanks are available. Secretary Rich, of the Massachusetts Horticultural Society, is giving all the aid and attention in his power to serve exhibitors.

The manager of the Rose Society's exhibits is Mr. Eber Holmes, of Montrose, Mass., and the manager of a Rose Show always has a job ahead and so far the men who have acted in this capacity have made all things satisfactory to exhibitors and the interested public. Mr. Holmes will do that.

The annual membership dues are being paid well. There is a free ticket to all members. The election of officers will be an important event, also deciding where the show shall go next year. Philadelphia has spoken for it.

BENJAMIN HAMMOND, Secretary.

# SOUTHAMPTON HORTICULTURAL SOCIETY.

The above society held its regular meeting in the Oddfellows Hall, Southampton, on March 4, when there was a good attendance of members present with the president. Mark McLoughlin, in the chair.

There were several interesting discussions on the following questions: Making of hotbeds, pruning of peach trees and best to plant; also hardy teas and hybrid tea roses and best to plant in Southampton. These informal discussions are of great benefit to the members, as is shown by the way the members take a live interest in them.

One active new member was elected, William A. Frankenbach, of the Frankenbach Nursery Co., of Southampton,

The next meeting will be held on March 18, when horticulturists visiting Southampton will be welcomed.

S. R. CANDLER. Corresponding Secretary

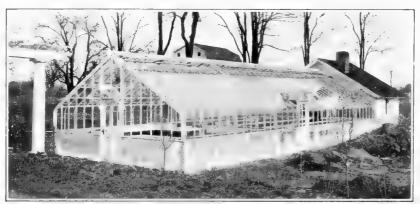






# you contemplating the erection Greenhouse or Lonservator

No country home is complete without one. See our exhibit at the New York Flower Show and get our plans and prices before ordering.



# METROPOLITAN MATERIAL COMPANY

PATENTED AND PENDING

Iron Frame, Curved Eave and Semi-Iron Greenhouses Greenhouse Designers Heating Engineers Hotbed Sash Glass

1398-1408 Metropolitan Ave.

Brooklyn, New York

Metropolitan greenhouse we erected for the Postum Cereal Co. at Battle Creek, Michigan.

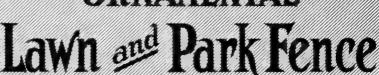
THE THE THE THE THE THE THE

"There is a reason." See what Mr. C. L. Post says about it:

Battle Creek, Mich.,
Feb. 11th, 1915.
Gentlemen. I am very much pleased with the greenhouse you erected for me at my country home at Goguac Lake.
It is a very classy little greenhouse, seems to be thoroly constructed in every detail, and of first-class workmanship thruout.
Yours very truly.

CARROLL L. POST.







# FOR PUBLIC PARKS—COUNTRY CLUBS—PRIVATE GROUNDS

Harmonizes with the natural beauty of public parks or private grounds and affords substantial, lasting protection.

No matter how handsome your home, in city, town or country, Cyclone-Waukegan Fence will give it an added air of beauty and prosperity not possible with wooden fence.

#### CYCLONE WAUKEGAN FENCE

is built in various artistic designs, of heavily galvanized wire, closely and firmly spaced. It is easy to erect on wood or iron posts and adjusts itself gracefully to uneven ground.

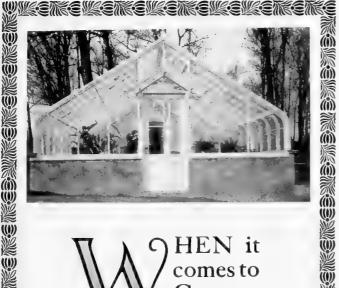
We build park fence of various heights and designs to suit your special needs.

We manufacture also Flower Bed and Lawn Borders, Trellises, Tennis Court Back Stops, Tree Guards, etc.

Handsomely Illustrated Catalog giving designs and prices, sent free on request.

CYCLONE FENCE COMPANY WAUKEGAN, ILL.

Our Engineering Department will co-operate with superintendents of Parks and Private Grounds, and Landscape Gardeners. We will be glad to assist in solving your fence problems without charge.



HEN it comes to Green-Houses,

# Hitchings 🛒 Company

come to

General Offices and Factory-ELIZABETH, N. J.

New York 1170 Broadway

Boston 49 Federal St.

Philadelphia 40 S. 15th St



Wren

House

# Birds Save Gardens Haire Birds will not only brighten your gardens, they work for you in destroying insect life

My free book tells how to win Wrens, Bluebirds,

My free book tells how to win Wrens, Bluchirds, Pumph Martins, Tree Swallows, Fluckers, etc., to live in your garden. I have won hundreds of birds and have helped thousands of others to win birds. It you want birds, write me.

I build bird houses shelters, baths, etc. Among them Dodson Purple Martin House 26 rooms and attic Price, 812 with all copper roof, \$15. Dodson Blueburd House Solid oak express roof, \$5. Chickadee or Nuthatch Houses, 815 to \$3.50. Flucker Houses, \$2.50 to \$5. Tree Swallow House, \$3. Bird Feeding Shelters, \$1.50 to \$10. Bird Baths, Zinc, \$6; Cement, \$17.

The Pamons Podson Sparrow Trap catches matically as many as 75 sparrows a day. Pr Get rid of sparrows and so help the song birds. catches \$5.00 matically

All prices are f. o. b. Chicago, Write for my free illustrated book today,

JOSEPH H. DODSON, 732 Security Bldg., Chicago

(Mr. Dodson is Director of the Illinois Audubon Society,)





# from Big feeding Barns Adulteration-No Weed Se



HIS mark stands for the cleanest Sheep Manure in America -no pig manure, no adulteration-nothing but Sheep Manure, dried and pulverized, and all weed seeds killed. We guarantee it absolutely clean. Shipped in 100 lb. bags. Write for prices, delivered.

NATURAL GUANO CO., 805 River St., Aurora, Ill.

# COMPETENT GARDENERS

Mildred Carlottin 1911 - London Londo

¶ The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

4 Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

**NEW YORK CITY** 



# The Herald of Better Service

N the arena of "Big Business" has appeared a new steel-brained champion, the Master-Model of the Royal—the machine with the rapidfire action; the typewriter that fires letters as an automatic gun spits bullets!

Unless you are "Royalized," you are paying the price of the Royal without knowing it-besides that of your oldstyle machine—in the higher cost of your business letters.

### Built for "Big Business" and its **Great Army of Expert Operators**

This master-machine does the work of several typewriters in one—it writes, types cards and bills! The one machine does it all—without any "special" attachments.

### Get the Facts!

Send for the "Royal man" and ask for a DEMONSTRATION. It vestigate the new machine that takes the "grind" out of typewriting. Or write us direct for our new brochure, "BETTER SERVICE," and book of facts on Touch Typing—with a handsome Color-Photograph of the new Royal Master-Model 10, sent free to typewriter users. "Write now—right now!"

ROYAL TYPEWRITER COMPANY, Inc. Royal Typewriter Building, Broadway, New York.



Nothing adds more to the beauty and attractiveness of your grounds than a good, substantial fence. Permanency is of prime importance, too. Select the fence that defies rust and withstands all weather conditions.



fences are made of big, strong wires with clamped joints which prevent slipping, sagging or twisting. This exclusive feature assures unusual rigidity under the most severe strain. Excelsior Fences are dipped in molten zinc which makes them practically indestructible. Write for Catalog J from which to select the style best suited to your needs. Ask your hardware dealer for Excelsior "Rust Proof" Trellises, Flower and Tree Guards.

WRIGHT WIRE COMPANY, Worcester, Mass.

# BERLEPSCH NEST BOXES

Berlepsch Nest Boxes are the best nest boxes in the world

 $1\mathrm{st-}B\mathrm{e}\mathrm{cause}$  they are used by more species of wild birds than all other kinds put together.

2nd—They are the only nest boxes which have ever been used by Harry and Downy Woodpeckers, and others of the birds mest useful in the woodland, on the farms and in the gardens.

3rd-Because they are the least conspicuous.

, to a all utilizations of the morning

 $4th{-}Because they are sold at prices which make it possible to use them in large numbers, the only way to insure protection from insects.$ 

Made in six different sizes by

THE AUDUBON BIRD HOUSE CO., of Meriden, N. H. Under the personal direction of Ernest Harold Baynes.

SEND FOR ILLUSTRATED CATALOG.

# GREENHOUSE SHADING

"The greenhouse shading I received from you last season was quite satisfactory.

"Wodenethe, Fishkill, N. Y.

"I have applied your greenhouse shading and find it works to perfection. I do not see where you can improve it.
"FRANK E. WITNEY, Superintendent."

Light green shoding is very desirable, particularly for private ranges. For all, is of does a flim, velvety film which is most attractive in apperature. Put of improve white and light blue also. State color acted. One gallon covers son square 6 t. Prive, \$1.56 per gallon.

Put up in invepoind carters in pewder form. Can be sent by Parcel Post and neved by venself. Mention whether for private or commercial use. Price, \$100 per 54h cartons.

This sharing a first rith reneved with water and sponge or a theigh storms do not affect it.

Manufacturer of E. A. Lippman Greenhouse Shading 6 HIGH STREET, MORRISTOWN, N. J.

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55

5 lb. package making 150 gallons, exp. extra 1.80

25 lb, package making 750 gallons, exp. extra 6.25 50 lb. package making 1,500 gallons, exp. extra 12.50

100 lb. package making 3,000 gallons, exp. extra 20 00

Barrels from 250 to 300 lbs., 18c. per lb.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon. 1½ gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

### BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.

# Hidden decay! Is it ruining your trees?

This tree was strong and healthy—apparently. But when a Davey Tree Surgeon examined it, he found a tiny crevice in the bark. A little chiseling quickly re-

vealed the dangerous condition decay shown in the second picture. It was so badly weak ened that any severe storm might easily have destroyed it.

Hidden decay works insidiously, and is undoubtedly threatening the life of some most valuable trees at this very moment Let

## Davey Tree Surgeons



find out—and tell viu how to restore them to sound health, as they have done with this tree and thousands of others. Careful official investigation proved that Davey Tree Surgeons only are good enough for the U.S. Government. Don't wait until it is too late to save your trees. Write today for free examination and booklet illustrating Davey

The Davey Tree Expert Co., 743 Elm St., Kent, Ohio

(Operating 11), La ev Institute of Tree Surgery)
Beanches in Principal Cities (Accredited) representatives everywhere.

. . — Банканыныя вы вывольный выпуска вы выпуска вы выпуска вы вывольный выпуска вы вывольный выпуска вы вывол



# \$11.75 Buys a 50 Foot Line of the SKINNER SYSTEM RAIN MACHINE

It will pay for itself the first season

WHY stand by and see your garden dry up, or else have to keep everlastingly running around with a hose, when, with a turn of a valve, you can, with one of our Complete Portable Lines, water a space 50 feet wide and 50 feet long. They cost but \$11.75. It includes everything,

except only the posts to carry it. It is equipped with quick - acting couplings, so you can quickly and easily take the entire line down and shift it to other locations.

You can give to your vegetables or flowers a gentle but thorough wetting. It makes you absolutely independent of weather con litions. Light, sandy soils can be turned into garden spots of the best.

Think what it would mean for your strawberries alone. No more drying up of the

fruit or dwindling away of the vines. You can add a third to the biggest yield you ever had, in the best year you ever had. From the results alone, you will come pretty close to getting a line on what the Skinner System Rain Machine will do for you.

If you want to put it on, say, an acre, it will cost about \$125.

Certainly that's reasonable, when you consider what it will do; and that year after year, it will keep right on doing it.

But even if you do put it on an entire acre, you will find the 50-foot Portable Line a mighty handy thing to have. So, why not order that right now, and then we can fix up the acre, or any part of it, just the same?

Send for our Bulletins and Special Complete Portable Line Circular.



is often possible to take advantage of some existing exated feature on the growds to carry the Skinner Sysm Rain Markine, so is will be practically out of  $x_k h t_i$  his pergila on one side, and the grape arbor on the her, does just that thing in this garden. tem Rain





This photo of the general con dition of a menthy lawn was taken the same day. Soil ex-actly the same as on the large lawn above. No humus was used. The grass was totally burned out in spets. The balance was brown and sorry enough looking

# For Quick, Lasting Results On Your Lawn Use ALPHANO HUMUS Dig It Around Your Shrubs Garden with It from Start to Finish

F you would have, with least care and expense, a lawn that will could those marvel us green swards of England--then use M paano Hamus treely. Spread it on the grass and rake it in the soil. Use it as an occasional top dressing throughout the season. Being in powdered form, it can quickly and easily be raked in the soil out of sight. Being odorless, you can, entirely without objection; use it at any time anywhere on your grounds. Being free from weed seeds, no such enemies are introduced. Being nature's own soil builder—no matter how heavily you spread it on, there is no danger of its burning the grass. Absorbing as it does five times its own weight in water and 14 times more than will sand, it stores up mois-ture in the soil and slowly liberates it as needed. In addition, then, to its plant-food values and soil-building properties, it acts as a dry weather protection. This Al phano Humus is the remains of countless years of vegetable and animal life, found in rich deposits at Alphano, N. J. It is practically pure Humus. We concentrate it. further increase its immediately available plant-food value, and pulverize it ready for use. In this ready for use form, its analysis equals both in plant-food values and the properties of giving long enduring fertility to soils that of the humus in the richest soils of our western prairies or the famed black alluvial soils of Russia.

We have too booklets on this Humus subject, either or both of which you are welcome to. The Humus Book tells of Humus in general and Alphano Humus in particular. The Convincement Book is a collection of evidence of what Alphano Humus has done and therefore what is with the state of the s and, therefore, what it will do. If desired, our soil experts will analyze your soil for you and make suggestions for its handling.

THIS SERVICE IS WITHOUT COST TO OUR CUSTOMERS



Good for Vegetables



\$12 a ton in bags \$8 by the ton in bulk F. O. B. Alphano, N. J.

# umus

17-G Battery Place, New York



territor Shrubs

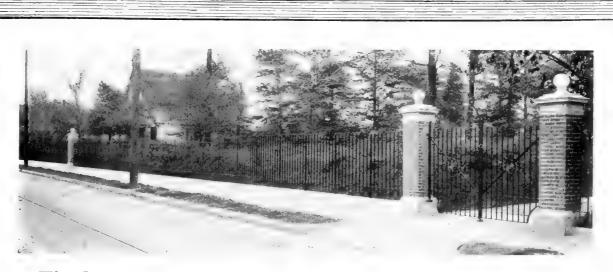
# A recent example of a Greenhouse and Garage combined

which we erected in Germantown, Pa., is shown below. Last year we built the first house and the owner was so pleased with the results he obtained that he added two more houses this season.



At the Country Life Permanent Exposition on the third floor of the Grand Central Terminal, 42d St., New York City, we have erected for YOUR benefit a FULL SIZE GREENHOUSE where you can see, before you place your order, the many improvements which we employ in our modern Greenhouses of Quality. Our galvanized "VEE" SECTION sash bar finished in Aluminum is the last word in greenhouse construction. Write for a sample "VEE" Bar and be convinced of the superiority of our product. Lutton greenhouses are to be found in all sections of the Country. Let us tell you where the nearest one to you is located, so that you can "ask the man who owns one" for his opinion. Gardeners all over the United States will testify to the efficiency of the Lutton type of greenhouse.

WM. H. LUTTON COMPANY Designers and Builders of Modern Greenhouses JERSEY CITY, N. J.



# Find Out What One Of Our Fences Would Cost

A LONG with the regulation for derivative things of the above that of the reputation for left fit is not happen.

Out as explain. Process from a governed by cost of fit is explained. The constraints of the fit is explained by cost of fit is explained. The constraints of the fit is explained by cost of fit is

2430 Yandes Street

ENTERPRISE IRON WORKS

Indianapolis, Ind.

# PROTECT PLANT LIFE

from insect pests and the various fungi with which it is afflicted as it is to properly fertilize it. The importance of this to successful cultivation is becoming more and more evident as more is learned about the growth and habits of vegetation.



a concentrated liquid spraying material, readily soluble in water, is used at various strengths, according to directions on cans.

Aphine is equally effective in the house and garden; free from disagreeable odors of most insecticides, and practical for professional and amateur growers.

It is effective against green, black and white fly, red spider, thrips, mealy bug, soft scale, rose, cabbage and currant slugs, and other soft bodied and sap-sucking insects. It can be applied to the tenderest foliage, flowers, fruits and vegetables.

Aphine will keep your plants (sweet pea vines, rose bushes,

etc., etc.) in the garden free from insects.

Aphine is used by prominent growers as a wash for decorative stock.

Gill, 25c.; half pint, 40c.; pint, 65c.; quart, \$1.00; gallon, \$2.50.

# **SCALINE**

is an oil and sulphur composition—three in one, a scalicide, insecticide, and fungicide combined, composed of a high grade of petroleum, and the properties of the well known

fungicide, Fungine. It is a most efficient winter spraying material for San Jose and other scale.

Use one part Scaline to twenty parts water.

As a summer spray for hardy trees, shrubs and plants it is an effective remedy against green, black and white fly, red spider, thrips, woolly aphis, cottony maple scale, tulip scale, mealy bug, and all soft scale. Use one part Scaline to forty to fifty parts water.

The sulphur contained in Scaline makes it an excellent preventive against various fungi at all

seasons of the year.

Scaline will rid your evergreens and shrubs of the red spider pest, which has done so much

havoc to them recently.

For summer spraying, Scaline is recognized as a marked improvement over the old-fashioned kerosene emulsion; more effective and more economical. It mixes readily with water, contains no sediment, and can be applied with the finest spray nozzle.

Quart, 75c.; gallon, \$1.50; 10 gallons, \$10.00.

# **FUNGINE**

is a concentrated sulphur composition, used as a spraying material, readily soluble in water, containing no sediment, and, unlike Bordeaux mixture, and lime and sulphur, does

not stain the foliage, but cleanses it.

It is an infallible remedy for mildew, rust and wilt, affecting flowers, fruits and vegetables, and is used with much success by leading growers on young stock as a preventive against various blights; also against bench fungi.

One gallon makes 50 gallons spraying material.

Half pint, 30c.; pint, 50c.; quart, 75c.; gallon, \$2.00.

# VERMINE

is a soil sterilizer and vermicide. Destroys cut, wire, eel and grub worms, maggots, root lice and ants. Used one part to four hundred parts water, thoroughly soaking the

ground, it will protect your plants and lawns against ravages under the soil.

Gill, 25c.; half pint, 40c.; pints, 65c.; quart, \$1.00; gallon, \$3.00.

These products have the endorsement of leading commercial and private growers, and are generally recognized as standard remedies for the control of the insects and plant diseases for which they are recommended.

For sale by the leading seedsmen throughout the country. If not obtainable in your community, send us your order direct and we will have it shipped to you from our nearest agency.

# Aphine Manufacturing Co. Agricultural Chemicals

GEO. A. BURNISTON
President

MADISON, NEW JERSEY

M. C. EBEL Treasurer Esculemandino de la coma di marcino de la composita della composita della composita della composita della composita della comp



# COLUMBIA

FOR the youngsters' frolic, for the entertainment of your friends, for the dancing hour —no other one thing gives so much real pleasure and entertainment as the Columbia Grafonola.

From the thousands of Columbia Records—with scores of new ones every month—you choose from "all the music of all the world, and most of the fun of it, too."

Distinguished for superb tone-quality you can tell the genuine Columbia by its tone-control leaves which give the exclusively Columbia control of tone-colume.

More than S5.—Colombia dealers — every one with 2.5 demonstrate the Grato. If there is a Colombia dealer regression is a wind telling in 1110 one is a catalogue at 1110 one is a catal

3, r.r. Col., d.r. D. delle Disc Record at (5 cc. 4), thous, also of ct. r. 5 S7.50. And every one of them will fit any machine, Columbia or not. Grafonellas in (8)7.50. The S5 (6) converges

#### COLUMBIA GRAPHOPHONE COMPANY

Box C209 Woolworth Building, New York Toronto: 365-367 Sorauren Avenue. Prices in Canada Plus Duty.



Grafonola "Favorite," \$50 Easy Term

# GRAFONOLA



# Wedding Presents in Sterling Silver

That Wedding Present?

Of course it is not just its expense which is on your mind, but the time and consideration you must spend on the choosing of it.

You will reduce this to a minimum, and probably save some money too, if you come in and ask us to help you to a choice.

"Everything in Silver" is what you find at the Meriden Store,

and you must realize that "Something in Silver" makes the ideal wedding gift.

We can show you a wider and more varied selection than you can find elsewhere because eleven of the leading Silversmiths' Factories in the United States contribute to our stock.

We can offer you better value than others because the eleven factories are under our own management.

# International Silver Company

Succeeding The MERIDEN Co. Established 1852

49-51 West 34th St., through to 68-70 West 35th St., New York

# 





THE most important part of your landscape planting is that the specimen trees which really form the "climax" of your whole planting, shall be as perfect as you can possibly secure. We invite your consideration of Hill's Specimen Evergreens, each of which is grown with as much care as though it were the only

We grow our specimens from seed and transplant them frequently. This is to the formation of a mass of thrifty roots and a well-built, shapely top. But

there are other important things to consider also.

Evergreens of exceptional quality cannot be grown in just any soil that you happen to select. We located here because we found this section especially well adapted to evergreen culture. Then there must be special knowledge and skill in growing them—we have supplied that in our over 50 years' experience.

### We Grow the Kind of Evergreens YOU Want and We Invite Inspection of Our Stock

Gardeners laying out plantings calling for especially fine specimens, or owners desiring to increase the attractiveness of their grounds by the addition of notably handsome trees, are invited to correspond with us. We always have hundreds of attractive specimens coming on—well developed individuals which can

ureds of attractive specimens coming on—well developed individuals which can be reserved until planting time or until needed by owner.

We invite prospective buyers to call in person to inspect our stock. This is the most satisfactory way, although we are always glad to supply catalog and all particulars by mail, when it is impossible to come. "Hill's Evergreen Book" sent Free on request. Write for it.

# THE D. HILL NURSERY CO., Inc.

Evergreen Specialists

LARGEST GROWERS IN AMERICA

D. HILL, President

Box 305, DUNDEE, ILLINOIS

# NAMED VARIETIES

# THE FINEST AND BEST OF THE NEW DELPHINIUMS

BELLADONNA. Lovely sky blue; distinct and very free; branching habit. Three feet. 25c. each. 82.50 per doz.

BELLADONNA GRANDIFLORA. Beautiful delicate sky blue Improvement on Bella donna, flowers larger, 50c. each, \$5.00 per doz.

COMITE. Sky blue, inside petals soft pink; very beautiful. 50c. each, \$5.00 per doz.

DUKE OF CONNAUGHT. Bright, velvety blue with inner petals of bright, rosy lavender:

very dark eye. Slightly semi-double; very distinct. 30c, each, \$3.00 per doz.

TRUE BLUE. Intense blue, single flowers with dark eye. The purest blue found in the Delphinium family and one of the best kinds ever raised. \$1.50 each, \$18.00 per doz.

KING OF DELPHINIUMS. Immense, semi-

double flowers of deep blue color; clear white

A magnificent variety, 50c, each; \$5,00 per doz

LAMARTINE. A dark blue form of Belladonna; splendid for massing. 25c. each, \$2.50

MOERHEIMI. A new variety of great merit. Color pure white, entirely free from any shading; habit strong and vigorous. The first pure white Delphinium of the Hybridum type. 35c. each \$3.50 per doz. **ERSIMMON.** Beautiful bright azure blue.

PERSIMMON. with light sulphur center. Large individual flower and excellent habit. An improvement on Belladonna. 40c. each, \$4.00 per doz.

REV. E. LASCELLES. Very double flowers of a deep blue color with distinct white center. A

striking variety of robust habit. \$1.25 each, \$12.50 per doz.

We grow a full assortment of the best Hardy Perennials Pot grown plants for shipment when you are ready for them

AN PIERSON INC.

CROMWELL CARDENS

CROMWELL CONN

# The Mackensen Game Park

Fancy Pheasants. Peafowl, Cranes. Flamingos, Storks, Quail, Wild Turkeys, Deer. Llamas. Squirrels, Foxes.



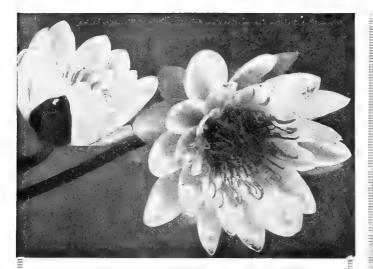
A GROUP OF FLAMINGOS IN MY PARK AT YARDLEY.

Ornamental Waterfowl, Swans, Geese. Ducks Gallinules, Coots, Pelicans, and all kinds of birds and animals always on hand.

WRITE TO

WILLIAM J. MACKENSEN YARDLEY, PA. Naturalist

WILD ANIMALS FOR ZOOLOGICAL GARDENS, PARKS, PRESERVES AND MENAGERIES



# DREER'S WATER LILIES

Hardy and Tropical

Largest collection in America, embracing many wonderful hybrids especially suited for growing in fountains, pools and ponds.

### DREER'S GARDEN BOOK FOR 1915

contains the largest list of Aquatic plants offered, also beautiful illustrations of many varieties and cultural notes written by experts. Sent free if you mention this publication. We also offer the advice of our expert concerning plans for ponds and selection of varieties.

HENRY A. DREER, 714-16 Chestnut St., Philadelphia, Pa.

"Go to Specialists for Quality"



IOHN SCHEEPERS & CO., Inc.
Flowerbulb Specialists
2 Stone Street, New York City



# Our Summer Catalog

Our Summer Catalog shows what hardy plants to use before October 1st, to get quick, pleasing results.

Shall we send you a copy, Free? Write us today

THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65, Germantown, Phila.

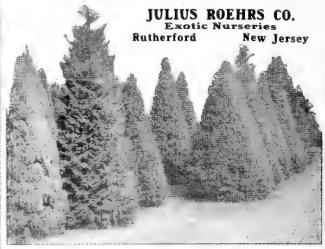
# Evergreen Trees

There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

### Trees, Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs,
Greenhouse Plants and Orchids.



# Suffragette Cosmos

It blossoms in early July till frost, and no variety of fall cosmos surpasses it in size of blossoms, long stems, or luxuriance of bloom.

A long list of high-class gardeners, everyone knows them, say: "It is the best cosmos we ever saw; it takes the place of summer and fall varieties."

Send for booklet and see who they are and what they say about the "Suffragettes." Plants only. Your money back if you are not entirely satisfied.

### EDWARD LEWIS

Cosmos Specialist

DERBY, CONN.

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

The state of the s

# KENNEDY & HUNTER

**SEEDSMEN** 

IF YOU HAVE NOT RECEIVED OUR 1915 CATALOG, WRITE FOR IT NOW

156 West 34th Street One block from New York

"ONLY THE BEST"



One of our TWICE-Transplanted 2 to 3 foot grade White Pines Well-branched, straight, heavy-rooted

all 1971 and 1971

# Wonderful Prices HITE PINE

# "America's Most Beautiful Evergreen"

SPLENDID TREES, GOOD TOPS, ABUNDANT FIBROUS ROOTS, NEW ENGLAND BORN AND GROWN-HENCE HARDY AND VIGOROUS

Root-Pruned and TWICE-Transplanted-3 TO 4 FEET HIGH

1000 Trees **\$295** 100 Trees **\$34** 12 Trees **\$7** 

A Lighter Grade ONCE-Transplanted-2 TO 3 FEET HIGH

1000 Trees **\$85** 100 Trees **\$10** 12 Trees **\$3** 

All F. O. B. Framingham, Mass. Lower Prices for Other Grades and Larger Quantities

FOR Shelter Belts, Windbreaks, Snowbreaks, Dustbreaks, Noisebreaks, Screens and Tall Hedges. Use it for borders and avenue planting, and otherwise beautifying Estates, Parks, Cemeteries and Waste Lands. It increases land values it makes a wonderful background in the landscape picture; for underplanting in your woodlands and in shady places. PLANT IN YOUR GARDENS, transplanting elsewhere as desired.

WHITE PINE HAS WONDERFUL ADAPTABILITY, GROWS RAPIDLY AND VIGOROUSLY.

Transplants easily.

MANY MILLIONS OF ORNAMENTAL, SHADE, FOREST AND HEDGE TREES

WRITE NOW for Our Free Illustrated SPRING 1915 CATALOGUE. Explain Your Problems

Let us
Help You in
any Matter
Pertaining
to TREES

Little Tree Harms of America Boston

AMERICAN FORESTRY COMPANY
Department 4B, 15 BEACON STREET, BOSTON, MASS.



We Design and Furnish

# Plans for the Finest Landscape Work

If you are contemplating any extensive park or estate planting communicate with us on your requirements.

Our Nursery is located at Scarborough, N. Y., near the railroad station, comprising over fifty acres, and contains one of the choicest and rarest collections of shrubs and trees in the country. We have been awarded for the last three years, by the Horticultural Society of New York,

FIRST PRIZE FOR THE FINEST AND LARG-EST COLLECTION OF HARDY SHRUBS AND TREES.

We will take pleasure in sending our catalogue on request.

# F. R. PIERSON COMPANY

Main Office and Post Office, Tarrytown, N. Y.
Telephone, Tarrytown 48

# "Carnations"

Now is a good time to stock up with what Carnations you need before they are planted in the field. We can supply splendid pot plants of: ALICE, GOOD CHEER, PHILADELPHIA, and MRS. C. W. WARD. PINK, MRS. CHENEY, BENORA, VARIEGATED. COMMODORE, BEACON, SCARLET, MATCHLESS, WHITE ENCHANTRESS AND WHITE PERFECTION, WHITE.

A full line also of Roses and Clarys anthemums, both in Novelties and Standards.

# CHARLES H. TOTTY

Madison, New Jersey

### BEAUTIFUL WATER LILIES

Tricker's Water 1.1 es were awarded a gold medal at the Inter-Lational Show. New York M., th 17th last. Write for booklet con-taining full description and directions for garden culture, as well as fer ponds formularis, basis, etc.

WM. TRICKER, Box W, Arlington, N. J.

# IMPORTED ORCHIDS

If you contemplate buying imported stock this year write to me. JOSEPH MANDA, Orchid Expert, Seedsman and Florist WEST ORANGE, N. J.

# Chrysanthemums - Carnations—Roses

NOVELTIES FOR 1915

If you did not receive our 1915 price list write us

Elmsford Nurseries-Scott Bros., Elmsford, N. Y.

## ORCHIDS

We are Specialists In Orchids, we collect, grow, Import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N J.

# HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

## D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

# THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES NURSERIES.

There you will find all kinds and you can take your pick from the best that is grown. Maximum Quality at Minimum Prices. Write W. R. Clucas, Manager.

THE PALISADES NURSERIES, INC., SPARKILL, N. Y.

PACHYSANDRA TERMINALIS - evergreen trailing plant—unexcelled for border or cover for shady places.

Eyear-dd plants......\$10 per 100; \$80 per 1,000 Eyear-dd plants......\$7 per 100; \$60 per 1,000

JAMES WHEELER,

ADDINE S (DEDUCE E. E.) OR CHEROMORIDATE C. GOVERNMENTS LE

Natick, Mass.

### Manufacturer of GREENHOUSE SHADING E. A. LIPPMAN

6 HIGH STREET, MORRISTOWN, N. J.

Hyde Park-on-Hudson, N. Y.

E. A. Lippman: We have used your Greenhouse Shading for the past year and it gave entire satisfaction.

H, C. SHEARS, Supt. for Frederick Vanderbilt, Esq.

### 94-20-20 Millian - 1989-90 or 3-4-10 decidents 3-4-1 for the second statement of the second statement HARRY BALDWIN

Manufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS

MAMARONECK, N. Y.



the Uptown Seed Store, 40 west 28th Street, New York City, is one of the most easily reached in the city

Forty West Twenty-Eighth Street is between Broadway and Sixth Avenue—on the south side—and is about midway between these great highways.

On Broadway we have the surface cars; on Sixth Avenue the Elevated, and McAdoo Tunnel Stations and the surface cars; the Twenty-Eighth Street surface cars pass the door. The Pennsylvania and Grand Central Stations are easily reached from this point, and the McAdoo Tunnels will carry you to the Lackawanna, Erie, or Jersey Central Railroads.

Our Telephone Number is Madison Square, 5590. Write for our unique catalogue.

VISITORS WELCOME

# Harry A. Bunyard Co.

Seeds, Bulbs, Plants.

Grass Seed Specialists

Committee that i 🛎



# All Varieties Thoroughly Tested

T is the policy of Jas. Carter & Co. to thoroughly test every strain of flower or vegetable. Not until satisfactory results are shown by actual growing are they listed in the Carter Catalog.

That is why Carters Tested Seeds are so reliable and true to description.

If you have not examined the 1915 Carter Catalog—American Edition—write at once for your copy.



CARTERS TESTED SEEDS, INC. 111 Chamber of Commerce Bldg., Boston, Mass.

Branch at Seattle, Wash, In Canada—133 King St. E., Toronto. Branch of Jas. Carter & Co., Raynes Park, England.

in initia. a uu lait. . . . uu all bulku iniin g 🕾

# **BOBBINK & ATKINS**

"WORLD'S CHOICEST NURSERY AND GREEN-HOUSE PRODUCTS" GROWN IN AMERICA

Several years of constant thought and effort places us in a position to fill orders for all kinds of Nursery and Greenhouse Products for Outdoor Planting and Indoor Decorations INDEPENDENT Of EURO PEAN IMPORTATIONS. Among the many attractions growing in our and area of highly cultivated Nursery are large quantities of the following specialties.

ROSE PLANTS Hyo d Tea Perpetual and other varieties.

EVERGREENS, CONIFERS and PINES Many acres of our Nursery are planted with them.

HARDY OLD-FASHIONED PER-ENNIAL PLANTS.

SHADE TREES, FLOWERING SHRUBS and JAPANESE MAPLES.

DWARF, TRAINED and ORDINARY FRUIT TREES, STRAWBERRY PLANTS and other small fruits.

BAY TREES and large leaved decorative plants

DAHLIAS at 1 other Bulbs and

PLANT TUBS, WINDOW BOXES, ENGLISH GARDEN FURNITURE and RUSTIC WORK.

RHODODENDRONS — English, Hardy Hybrids, Catawbiense and Maximum varieties.

HARDY VINES and CLIMBERS.
JAFANESE FLOWERING
CHERRY and CRAB-APPLE
TREES.

PEONIES, German and Japanese

BOXWOOD and other large leaved Evergreens.

CALIFORNIA PRIVET, BER-BERIS and other hedge plants.

OUR NEW HYBRID GIANT-FLOWERING MARSHMALLOW WILL BLOOM EVERYWHERE.

The above are discussed and proceed in our Hlustrated General Catalog No. (c) model upon request. When requesting catalog, please state in what you are interested. VISITORS are made welcome to inspect our products, which is view important before placing orders.

We Plan and Plant Grounds and Gardens Everywhere.

Correspondence Invited.

NURSERYMEN, FLORISTS AND PLANTERS RUTHERFORD, N. J.

ARTERIOR SO TEM AS PERMININA MANAGEMENT FOR A TRANSPORTING WINDOWS AND ASSESSED.

# NEW ROSE GARDENS

If you contemplate making a ROSE GARDEN, you would do well by consulting us regarding the varieties that will supply you with continuous bloom all season

Rose Garden Designs We will be pleased to supply you, free of cost, a suitable plan for your ROSE GARDEN, if you will only give us the dimensions

Hybrid Tea or Everblooming Roses

We have on hand 45 of the best varieties of above. Also a fine collection of HYBRID PERPETUALS, CLIMBERS, STANDARDS and others

ALL STRONG TWO-YEAR OLD, THAT WILL BLOOM THIS SEASON

WRITE FOR OUR ILLUSTRATED CATALOGUE, MAILED FREE

W. E. MARSHALL & CO. Seedsmen and 166 West 23rd St., N.Y.

# The Contents---April, 1915

	Page		Page
The International Flower Show of 1915 .		Among the Gardeners	_
Lessons from the Flower Show		Boston Horticultural Circles	
By An Observer		Pittsburgh Horticultural Circles	
An Amateur's Impression of the Show		Obituary Notes	
My $M$ rs. Francis $K$ ing	178	American Association of Park Superintendent	
A Professional's View of the Show		Notes	192
By A. B. MacGregor	179	Park Department Personals	192
The Boston Spring Flower Show		Itinerary of A. A. P. S. California Trip	193
By W. N. Craig	179	Tacoma, Ore., and Its Parks	194
Seasonable Notes on the Garden	181	American Academy of Arborists	
Specimen Plant Coelogyne Cristata	181	Value of American Horticultural Literature	198
Growing Exhibition Dahlias By P. W. Popp	182	Preliminary Schedule, Fourth National Flower	1,70
A Plea for Rock Gardens		Show	199
By Luke O'Reilly		Queries and Answers	200
Favorite Plants for Rockeries	183	Directory of National Associations .	201
How to Grow Hollyhocks	184	Directory of Local Horticultural Societies	201
An Undergardener's Lodge	184	Directory of Garden Clubs	202
Work for the Month of May		Horticultural Events	202
By Henry Gibson	185	Newport, R. I., Horticultural Society .	203
Cultural Notes on Amaryllis Hippeastrum .		Oyster Bay, N. Y., Horticultural Society	203
By John Scheepers	186	Pittsburgh Florists' and Gardeners' Club	204 204
Flowers for the Hardy Garden		New London, Conn., Horticultural Society Connecticut Horticultural Society	
By Bertrand H. Farr	187	Tuxedo, N. Y., Horticultural Society .	206
Editorials	189	Lake Geneva, Wis., Gardeners' Association	
National Association of Gardeners' Notes .	190	Railway Gardening Association	206

# STAIGREEN LAWN SEED

It you are doing new seeding or renovating the old Lawn, it will pay you to use only the best.

# 25-Pound versus 14-Pound LAWN SEED

Many low-price Grass Seed mixtures weigh only 14 pounds per bushel. This indicates either a good proportion of chaff or some of the real good varieties in the rough state, not properly cleansed so as to leave only the vital part and less of the chaff or shell. In other words, so many less seeds to the quart or pound that will germinate and grow real grass.

# Why Not Buy the Re-cleaned Kind?

A mixture of grasses weighing 25 pounds per bushel of high germination and purity, perma neut in nature, the varieties carefully proportioned so that they will succeed one another in brightness of foliage, with the result that the lawn, even in its first year, will have a bright, tich green color from early spring until covered by snow.

POUND 40 cts. 5 POUNDS \$1.75 25 POUNDS \$8.00 100 POUNDS \$30.00

One Pound Will Sow a Plot 20 x 20 feet. Sow 80 Pounds to the Acre

Street Street NEW YORK CITY

# GARDENERS' CHRONICLE

# OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities,

Vol. XIX.

APRIL, 1915.

No. 4.

# The International Flower Show of 1915

The third international flower show, more properly called the New York Spring Flower Show, held in the New Grand Central Palace, New York City, March 17-23, judged from every viewpoint was a success. Chairman Frank R. Pierson, Secretary John Young and the other members of the show committee, and Arthur Herrington, the exhibition manager, are to be congratulated on the favorable outcome of their united efforts. To these gentlemen, to the guarantors of the show, to the donors of cup and cash prizes, to the board of jurors, furthermore to the trade exhibitors, and lastly, but by no means in the least degree to the private and commercial plant and

flower growers, who exhibited their products, the thanks of the florist craft, and of flower and plant lovers in general are extended.

Many of the large commercial growers and some of the private growers, whose exhibits at the former shows were numerous were not in the arena to contend for the prizes this year, but on the other hand new exhibitors appeared. It is well that these flower shows have so soon reached such a magnitude that their success is not



THE TEA GARDEN OF THE AMERICAN RED CROSS SOCIETY, WHICH WAS INSTRU-MENTAL IN MAKING THE INTERNATIONAL FLOWER SHOW NEW YORK'S SOCIETY EVENT OF THE SEASON.

endangered by the failure of a considerable number of growers to participate every year. No doubt these growers, the absence of whose exhibits was noted with regret this spring, will again be contestants at future spring shows. We cannot help but think that dependence upon a large, even if changing number of exhibitors puts these flower shows upon a safer basis than reliance upon a few private and commercial growers, however distinguished they may be, for the greater the number of the exhibitors that participate the more widespread must become the interest towards the show, and with proper interest manifested the success of a show is assured.

THE RED CROSS TEA GARDEN.

The tea garden of the American Red Cross Society, beautifully and artistically decorated and furnished and conducted by the several New York Chapters of this Society, was the most distinctive and praiseworthy new feature of this year's show. This innovation, humanitarian in its aim, was a social and financial success. Undoubtedly it drew many to the general show, who, had it not been for this Tea Room, would not have attended.

ANALYTICAL SUMMARY OF THE SHOW.

A brief, and by no means exhaustive summary of the exhibits, with mention in connecnection with these of the successful exhibitors, may be of interest to those who could not attend the show or made only a hasty visit, and also in a general way as a matter of record for future refer-

DEPARTMENT OF PARKS.

The Park Department of the Borough of Manhattan staged this year a large, noncompetitive group

which from the variety and excellence of material and pleasing arrangement attracted much attention, and elicited much admiration throughout the show period. The center of the group was occupied by Specimen Palms, surrounded by blooming plants of Azalea indica, amoena and mollis, which in turn were surrounded by Spiraeas and Cinerarias, interspersed with Pandanus Veitchii, with Genistas occupying one corner and the whole group edged with pans of blooming Tulips, and Hyacinths. There was also at each corner a rare, large Fern, and at the sides some fine blooming specimens of Jasmi-

num primulinum and an unusually large specimen of Euphorbia splendens. This group well deserved the gold medal bestowed upon it by the judges.

### PRIVATE GROWER EXHIBITS.

The private growers may speak with just pride of the fact that their exhibits made up more than half of the show. They contended in nearly all the classes open to them in the schedule, with the exception of the potted rose, Erica, Boronia and Hydrangea classes in which they made a very weak showing.

### PLANTS IN FLOWER.

Most noteworthy in this section were the Acadias shown by Percy Hicks, gardener to Bertram H. Borden, Oceanic, X. J., and a

specimen of the same by James Stuart, gardener to Mrs. F. A. Constable, Mamaroneck, N. Y.: the Amaryllis, staged by Wm. H. Duckham sup erintendent for Vals. D. Willis James, Madison, N. J., one of the most laturtitul exhibits in the entire show, and the fine group of flowering plants and bulbs by the same exhibitor, the specimen Anthurium shown by Wm. Cordes, gardener, to F. B. Burton, Newburg. N. Y., the Cineraria hybrida shown by F. Honeyman, gardener to Percy Chubb, Glen Cove, N. Y.; the Cineraria Stellata Cyclamen, Primula malacondes, and Shizambaof John (anning, gar-dener to Adolph Lewi solm, Ardsley, N. Y., the Primula and Cyclamen being esperally good; the Spiraeas of A. W. Golding, superintendent tor D. G. Reid, fivington. N. Y.: the specimen (hor izema of J. W. Smith gardener, to F. E. Lewis, Ridgefield, Conn.: the specimen Genista of J. H. Dodd, gardener to John Wanamaker, Jenkintown. Pa.; the Lilacs of P. W. Popp, gardener to Mr. H. Darlington, Mamaro neck, N. Y.; the finest specimens of any one kind of forced shrubs in the show; the very perfect specimen Marguerite Daisy of William II. Fischer, New Canaan, Conn., and the Primula ob omca a very un exhibit of F. High-man, gardener to Rulob Pulitzer, Mamass , N, Y,



OUTNIEST OF THE DEPARTMENT OF PARKS, NEW YORK CHY STAGED UNDER THE DIRECTION SUPERINTENDENT OF PARKS JOHN H. BEATTIE.

### Palms, Foliage and Miscellaneous Plants.

Conspicuous in this class were the Crotons and group of Ioliage plants of R. M. Johnston, superintendent for W. B. Thompson, Yonkers, N. Y.; the Kentia Palms of C. Weber, gardener to Mrs. J. Hood Wright, New York City, and of James Stuart: Wm. II. Duckham's group of foliage plants, and the specimen Bay trees of Rudolph Heidkamp, Riverdale, N. Y.

### FERNS.

The most noteworthy exhibits in this section were the Adiantum Farleyense of Mrs. H. McK. Twombly, Madison, N. J.: the Adiantum Cuneatum of R. M. Johnston, the rare Davallia and Goniophlebium of Charles Weber, the Stag Horn of J. W. Smith, and the Cabotium of J. H. Dodd.

#### BULBOUS PLANTS.

The classes of this section were well filled and the exhibits were one of the brightest features of the show, especially notable were the Hyacinths of William H. Duckham, and of R. Hughes, gardener to James McDonald, Flushing, L. I.; the Lilies of C. W. Knight, gardener to the Westbrook Gardens, Oakdale, N. Y.; the Narcissus and Tulips of E. Fardel, gardener to Mrs. A. M. Booth, Great Neck, L. I.; and group of yellow Callas, Elliottiana of Jos. Mills, superinterdent to George Gould; the Lily of the Valley, Narcissus and Tulips of Payne Whitney, and the Narcissus and Tulips of J. W. Everitt, gardener to John T. Pratt, Glen Cove, N. Y.

#### ORCHID PLANTS AND CUT BLOOMS.

There was a fine group shown by S. G. Milosy, superintendent for

George Schlegel, Bay Ridge, N. Y., and specimens of Cattleya Cyprideiums, etc., by the same collection of Sophro-Cattleyas, Sophro-Laelias, etc., shown by J. P. Mossman, gardener to Clement Moore, Hackensack, N. J., and fine specimen plants by the same exhibitor, and by Louis Strauss, Pay Ridge, N. Y. There were well arranged table displays of cut orchids by Arthur N. Cooley, Pittsfield, Mass, and James MacMackan, superintendent to George F. Paker, Tuxedo Park, N. Y.

#### CUT BLOOMS-ROSES.

The American Beautes and the vises of twenty-five roses of Wm. Kleinheinz, gardener to P. A. B. Widener, Ogontz, Pa.; the Milady, Itadley, Kilarney Queen, and Mrs. Aaron Ward, of W. R. Fowkes, gardener to Mrs. Howard tole, Madison, N. J.; the Sunburst of James Stuart; the white Kilarneys of Benjamin Distey, gardener to Mrs. J. H. H. gleit, Green wich, tonn., and the Mrs. George Shawyer of David S. Miller, gardener, to George G. Mason, Tuxedo Park, N. Y., were the main features of this section.

### CARNATIONS.

The classes of this section were very well filled. Most conspicuous of the exhibits were the vases of 150 blooms of William Kleinheinz and A. W. Golding, su-

perintendent to D. G. Reid, the vases of 25 blooms of Joseph Tansey, superintendent to H. M. Tilford, R. M. Johnston, Max Schneider, gardener to Peter Hauck, East Orange, N. J.; J. W. Smith, and T. L. Wall, Hartsdale, N. Y.

#### SWEET PEAS.

A. W. Golding with his display of blooms covering twenty-five square feet and collection of six varieties, and Alex. Geddes, Stamford, Conn. with his exhibit of 100 sprays were the whole show in this section.

### MISCELLANEOUS CUT FLOWERS

P. W. Popp's basket of cut flowers was one of the prettiest exhibits in this class. John Canning's yellow Antirrhinum was

very fine, and there were also excellent pink blooms of this flower shown by A. Feurnier, Gardener to H. L. Harkness, Glen Cove, N. Y., and white blooms by J. Loveless, gardener to W. E. Griswold, Lenox, Mass., and assorted blooms by T. Honeyman.

The mignonette of Robert Allen, gardener to E. C. Benedict, Greenwich, Conn.; the white stocks of W. Wynne, gardener to W. W. He roy, Stamford, Conn., and the colored blooms of this flower of Joseph Tansey, the Wallflower of Charles Ruthven, gardener to Eugene Meyer, Mt. Kisco, N. Y., and the pansey displays of A. W. Golding and John Canning were good features of this very interesting and practical section.

#### VIOLETS.

In this section only one of the two classes of which was filled the lest exhibit was the 200 blooms of Singles shown by Max Schneider.

#### TABLE DECORATIONS.

The table decorations were beyond argument one of the prettiest, most artistic and instructive teatures of the show. They were indeed as thing of beauty? and were universally admired. Competition was very close. On Trickay the silver cop of the New York Horticultural Society competed for by horels only was won by the Holland House with a de oration with Yeara pulcisens, and white Spacesweet peas, winning out against the more elaborate decorations of the Ritz-Carlton, which carried off the second proc. The followers was hattain. St. Regis and Delmonaco all control well deserved special prizes, their discretions were so tear in excellence or lessed, and execution to the winners. In the decorations of Saturday in which Sweet Peas orly were allowed, the adaptability of this flower to this

use was well demonstrated in the beautiful decorations of David Francis, gardener to Mrs. Fallantine, or Convent Station, N. J., and Thos. At hisomegardere to Mrs. Nathan State Management, N. Y. The demarks of Monday when sacked great

diversity of material and arrangement, were the most leautiful of all. That of John Canning, who used Acacia pubescens, Hillingdon Roses, and Dendrobium Wardianum, and by R. M. Johnston, with Phalaenopsis Schillerianum, Dendrobium nobile, and



ROSE SHOW ARRANGED BY A WEPERS OF WHICH WAS AWARD OF HIS POPUL

Schizanthus were exquisite winning first and second, and in very close competition with the winners were P. W. Popp, W. Brock, a idence to technic Delaceld. Tuxedo Park, N. Y., Martin J. Fitzgerald, gardener to Samuel Untermyer, Yonkers, N. Y., and Thes. Are uson.

### TRADE EXHIBITS.

These exhibits, numbering about sixty, were very diverse in character, among the largest and most attractive being the plants and cut Towe set A. N. Pierse, The land L. R. Poson Company, the bulb and spring plants of J. 10 1. H 15 latter exhibiting many new and rare varieties of Narcissi, splendidly grown tulips, especially the Darwin varieties and several magnificent plants of Lilium Formosum. Besides these there were the exhibits of the retail florists. who exemplified in their daily changed exhibits the artistic arrangement of flowers and plants houses of the several greenhouse building firms, including Hitchings & Co.; Lord & Burn ham Co.; the Metropolitan Material Co., and Wm. H. Lutton & Co.

#### CLUB AND SOCIETY QUARTERS.

The handsomely decorated and well furnished quarters of the New York Florists' Club, and the Horticultural Society of New York on the first floor were freely used by the members of this club and society, and by visitors as rest rooms, and were greatly approached

### COMMERCIAL GROWERS.

The more noteworthy exhibits in the several classes of the sections open to commercial growers were: The Erica, Epacris, Boromas and Acacias of Knight & Struck Co., New York (ity: the Azaleas, Adiantum Farleyense, Rose Garden, Climbing Pot Roses and Cut Rose Plooms of A. N. Pierson, Inc., Cromwell, Conn.; the Azaleas, Hydrangeas, Lilaes, group of flowering and Ioliage plant and of forced shrubs and herbaceous plants, Palms, Bay Trees, Lily of the Valley and Orchids of Julius Rochrs Co., Rutherford, N. J.; Rhododendrois, Iilies, Conifers, Nephrolepsis, Ferns, Rose Garden, and cut Rose Blooms of F. R. Pierson Co., Tarrytown, N. Y.; the Spiracas, Rho lo lendrois, Dracaenas, Palms, Boxwoods and Pay



ROSE GARDEN ARRANGED BY F. R. PIERSON GENERAL VIIIW OF SHOW TO SIDE AND BACKGROUND.

Trees and torced shrubs and herbaceous plants of Bobbink & Atkins, Rutherford, N. J.; the Orchids of Lager & Hurrell, Summit, N. J.; the cut Rose Blooms of Gude Brothers, Washington, D. C., and the cut Carnation Blooms of the Cottage Gardens, Queens, N. Y.



THE "GARDENERS" CHRONICLE" AT THE INTERNATIONAL FLOWER SHOW.

### LESSONS FROM THE FLOWER SHOW.

By An Observer.

Perhaps we ought to go to the flower shows with a pocketbook in our left hand and a Johnson's "Gardeners' Dictionary" in the other. There are so many subjects the names of which we want to know, and not only to know, but to learn their meaning, and to find out from what part of the world the plants come. We cannot call ourselves good gardeners, certainly not intelligent gardeners, until we have studied geographical botany, something of etymology, have dived into the history of plant genera, and know quite a bit about hybridization and crossbreeding.

Yet even if much of all this is largely unknown to us, the flower show can still be made interesting from its exhibits of cultured and artistic skill. Sometimes we find both combined in one place, one group. Take, for example, the plant combinations in the "groups for expert" staged by Mrs. Willis James through her superintendent, Wm. H. Duckham, Madison, N. J.; or of F. E. Lewis (gardener, J. W. Smith), Ridgefield, Conn.; or Mr. Adolph Lewisohn's (gardener, John Corning), Ardsley, N. Y. There were other almost equally fine group displays, as from Mrs. Darlington (gardener, P. W. Popp), Mamaroneck, N. Y., and Mrs. A. V. Booth (gardener,

E. Fardel), Great Neck, N. Y. In every one there was the stamp of quality upon the plants themselves, combined with high artistic taste. In some there was just an inclination to crowding, but can we have real richness without actual massing? Perhaps not. Of course, if the prize schedule called for a combined flower and foliage



SPRING FLOWERING GROUP STAGED BY WM. DUCKHAM, SUPERINTENDENT, D. WILLIS JAMES ESTATE, MADISON, N. J. AWARDED FIRST PRIZE.

group that would allow more freedom, but only flowering plants were wanted. The groups were all totally distinct and nothing finer could well be conceived.

As examples of cultural skill there were four things that specially impressed me, namely, the Primulas, the Easter Lilies, the group of Calla Elliottiana, and the Schizanthuses. These latter plants are in great favor now-a-days, and rightly. I remember twenty years back and more when we grew only the old Schizanthus, pinna-



SPRING FLOWERING GROUP STAGED BY J. W. SMITH, GAR-DENER TO F. E. LEWIS, RIDGEFIELD, CONN., AWARDED SECOND PRIZE.

tus and retusus. Now there are varieties in nearly every color except blue. In those days we thought a feathery looking plant in a 5-inch pot quite nice; but since the coming of the dwarfer growing, more freely branching crossbred varieties—derivatives of S. Wisetonensis, big rounded or close growing pyramidal specimens are in

favor. Wisetonensis was introduced to public notice first and most prominently by the English firm of Stuart Low & Co., but both in Germany and France others took to improving these "butterfly flowers." It was reserved for Jos. Veitch & Sons, of London, however, to startle the floricultural world about four years ago when they exhibited a collection of about a dozen varieties in quite distinct colors. Some were white, some pink, one was a



ENHIBIT OF YELLOW CALLA FILLOTTIANA, BY GEO. GOULD (JOS MILLS, SUPERINTENDENT), LAKEWOOD, N. J. AWARDED GOLD MEDAL.

rich purple plum, and there were others in carmine, cerise, orange shades and so on.

Schizanthuses are very tractable subjects, highly amenable to careful attention, and they last in bloom many weeks in a greenhouse or conservatory. Like so many other plants they quickly go past or drop their flowers if used for room decoration. Mr. Canning, I believe, raised his fine specimens from seed sown in May. 1914, and grew them on without a check. They branched freely of their own accord and were staked out as growth advanced. Naturally, to induce growth and development they were fed (or "fertilized") liberally.

The Easter lilies (formosum) from Mrs. W. Bayard Cutting, C. W. Knight, superintendent, Oakdale, L. I., were the finest that most of us have ever seen, carrying 14 to 16 flowers each, on tall stems. The beautiful yellow callas from Mr. George Gould, Jos. Mills, superintendent, Lakewood, N. J., were superlative and never drooped an inch during the whole period of the show. This betokened stems of great solidity, as indeed they had, for I felt them to see.

In regard to the primulas, both the obconica and malacoides type were so fine they could scarcely be improved upon. P. obconica is now obtainable in rich lake, glowy crimson, pink, lavender, light blue and white; and I see that in Germany a good salmon has been selected and comes 50 per cent. from seed. All plants raised from seed are apt to vary, and when a variety comes 70 to 80 per cent. true this is considered satisfactory. By and by the salmon "obconica" may come 80 per cent. true also. Primula malacoides, which might well be called the "Feathery Primrose," was introduced to our gardens only a few years ago by George Forrest, the plant collector of the Bees, Ltd., Liverpool, England. Mr. Forrest has introduced several good hardy primulas as well, and some rhododendrons among other things, and traversed parts of Tibet and highland areas south of the re-

gion that E. H. Wilson explored. Wilson is now at the Arnold Arboretum, near Boston, Mass.; and Forrest is just returning from his second or third expedition. He has had some hairbreadth escapes, and about the time of the British Expedition to Lhassa, under Col. Younghusband, he narrowly missed death at the hands of the tribesmen.

This "feathery primrose" is now giving rise to several distinct varieties, a characteristic of many plants when they come into cultivation. Among the new colors now acquired are white, rose and a sort of crimson purple. Probably some one will hybridize this primula with the scarlet flowered Cockburniana. I wonder why this latter has not been shown yet by some of our growers? The whole family of primulas is a very wonderful one, with inflorescences in a variety of forms, and in colors from blue to scarlet, pink and primrose.

Another lesson at the flower show was got from the rose gardens. The best and coziest rose gardens are naturally those set out on a geometrical plan and preferably, I think, having a pergola, and bower and screening fences as features of the composition. The two gardens there shown were quite dissimilar, that of A. N. Pierson, Inc., Cromwell, Conn., being in the form of a rustic rosary; while the F. R. Pierson Co., of Tarrytown, N. Y., planned theirs on a classical basis. Each gave as good ideas for gardens of larger extent, but instead of the white pebbles in F. R. Pierson's I would prefer something of a quiet color in material that would bind and give a smooth surface; while a fault in A. N. Pierson's exhibit, to many minds, was the presence of the small



EXHIBIT OF LILLIUM TONGILLORI M TOR SUME SUMES W. BAYARD CUTTING (C. W. KNIGHT, SUPERINTENDENT).

OAKDALE, N. Y. AWARDED FIRST PRIZE.

corner beds. Roses, when massed in good colors as they were here, are resplendent, but let us always try to have ample freedom and space all about.

How many readers of THE GARDENERS' CHRONICLE of America saw and admired Julius Rochrs Co.'s little rock garden? To me it was full of interest, recalling many, many happy days spent in collecting alpine plants in Europe and enjoying them in the gardens amid surround-

ings that make these tiny gems feel well at home. Of course here in America, with our hot spell from May until September, it becomes a difficult task to keep them in health and vigor. Many will die year by year, especially such as hail from the cool uplands, yet our own native flora furnishes a sufficient selection of bright and interesting kinds. It is to be hoped that the nurserymen and those who specialize in hardy plants will make collections of thoroughly reliable alpines and others suitable for the rock garden. No part of the garden can be made more



THE ROUK GARDLY WHICH BECAME ONE OF THE INTER-SHAG FLATURES OF THE SHOW

completely interesting, especially in the period preceding the full floraison on the herbaceous borders.

In line with the foregoing, and forming an excellent adjunct to it, is the garden of water plants. Here the

water lilies of Dreer and of Tricker, and the other aquatic and bog plans they sell, provide the material. W. Tricker (Arlington, N. J.), had at the show his delightful ever-blooming Nymphæs (water liles) in several shades. One of these is very nearly white, and another has a decided tinge of deep rosy carmine. They are invaluable also for winter flowering in a warm greenhouse in water that is warmed to a temperature of 65 degrees Fahr. Mr. Tricker is to be congratulated on having given us this ever-blooming race in blues and white.

\* \* \*

The several lots of Amaryllis on view from Madison (Mrs. Willis James' place) and from E. S. Greswold's (gardener, Arthur J. Loveless), Lenox, Mass., delighted all those who love these very handsome western South American bulbs. The story of their uprise by cross-breeding must be told another time, but cer-

tainly in the Amaryllis the flower lover has a highly satisfactory class of plants, and the price of an up-to-date collection is well repaid, for they remain always in our possession, and, if well cared for, return an ample crop of their magnificent flowers of a period of several weeks in March, April and May and compensate one for all efforts to cultivate them.

### AN AMATEUR'S IMPRESSIONS OF THE SHOW.

By Mrs. Francis King, Michigan,

Certainly the recent flower show far surpassed in beauty, interest and general attractiveness both of its predecessors. The show of 1914 I did not see, only that of 1913, and my first impression as I walked about the Grand Central Palace on Wednesday, March 17, was that of a tremendous advance in taste in the exhibits, both in color planning, arrangement of flowers and in general

design and effectiveness of exhibits. I rejoiced to see the little rose gardens. Here, thought I, we do well indeed to imitate the example of exhibitors at all London shows, where for some years now small gardens have furnished beautiful and educational features. The contrast in these rose gardens of F. R. Pierson and A. N. Pierson, Inc., was very interesting. The styles of the gardens were totally different, F. R. Pierson's a sophisticated garden, if we might so characterize it; A. N. Pierson's more naive; yet each garden in its way a perfect object lesson to the would-be rose gardener. The public's delight in these gardens was pretty to see. I heard many expressions of pleasure from visitors and indeed it was touching, too, to see the occasional wistful gaze as those who saw and rejoiced in them reflected that these were not theirs to reproduce.

The little spring garden to the left of the grand staircase on the main floor, shown by A. Lewisohn, gardener John

shown by A. Lewisohn, gardener John Canning, was a pretty sight. It recalled at once to my mind the pictures in that excellent book, "Spring Gardening at Belvoir Castle." The variety of subjects used in this exhibit was amazing. Forced heuchera, both the type and the hybrids, dicentra spectabilis, white Bud-



VIEW OF THE ORCHID DISPLAY, WITH THE ROEHR COLLECTION IN THE FRAME SEEN AT THE RIGHT.

dleias, annual gypsophila and others, showed the greatest ingenuity upon the part of the gardener. Primula malacoides alba made an enchanting "ground-work," to use an ugly English word, for Darwin tulips, daffodils and heucheras, all very delicately disposed. The whole composition was full of charming suggestion for a spring garden in the open.

In the fine exhibit of Mrs. A. Booth, gardener, on the main floor, what a pleasure to see a species tulip, Clusiana, which I have grown for many years in my own garden, but which I had never seen exhibited in this country before. Here were fritillarias, too, and scillas and muscari—all little strangers to our shows I think. The Stumpp & Walter Company showed tulip Clusiana amid a wealth of very fine bulbous flowers and the exhibits of Julius Roehrs Company of rock and spring gardens in the balcony merited great praise.

The color masses of the show were remarkable. Glorious Darwin tulips, very fine hyacinths, huge sweet peas, carnations and roses of noble size and color, made sheets of bloom along the aisles and seemed to me to be dis-

played with wonderful success.

Bobbink & Atkins' conifers made effective groups and their arrangement of spring flowering subjects, shrubs and flowers, was particularly lovely and artistic. In fact, the show as a whole was a notable one, a show calculated to foster the ever-growing American enthusiasm for fine flower growing. I congratulate all who exhibited upon their successful efforts and thank them one and all for the keen personal pleasure given me by the high beauty and perfection of their flowers.

### A PROFESSIONAL'S VIEW OF THE SHOW.

By A. B. MACGREGOR, NEW YORK.

The first impression that I gleamed on visiting the International Flower Show in New York in March was that the quality of exhibits was fully up to the standard found at the first-class shows abroad. My opinion is that the staging was a marked improvement on last year's show, which was the first I ever attended in this country, having arrived here from England during the opening day of that show and my first American act was to view an American show, of which I had heard and read much, but never witnessed before.

I was especially impressed with the spring flowering groups, the arrangement of which and color effect were superb. The rose gardens were fine and compared most favorably with those seen at the exhibits on the other side. The cut roses were the finest I have ever seen, both in size of bloom and length of stem. They were wonderful, and, I must confess, superior to those produced abroad. The crowds reminded me of the crowds usually seen at Chelsea Gardens. The orchids, while an excellent exhibit, did not compare in quantity with those seen at the big shows on the other side. The foliage plants were grand. The bulbous stock was certainly on a par with that abroad.

As to the general appearance of the entire show, I would suggest that there is some room for improvement as far as the hall is concerned. The massive white pillars stood out too prominently. If this could be relieved by a little decoration of smilax or other grasses the effect would be marked.

### OUR COVER ILLUSTRATION.

The Sign of Spring is the subject of our cover illustration. It is a reproduction of a photograph of Miss Irene Kilmer, a great lover of outdoor sports, a clever rider and driver, at Oakdale Farm, Dutchess County, N. Y., with the famous Scottish Deerhound, "Coquette," a winner of the two blue ribbons at the recent Dog Show at Madison Square Garden, New York.

### HYACINTHS FOR EARLY FORCING.

For several years past Dutch bulb-growers have been devoting a considerable amount of attention to the prep-

aration of Hyacinths for early forcing, by submitting them to treatment which will bring them into bloom at or before Christmas. The bulbs are lifted very early, before the leaves have died off, and are then kept for two or three weeks in a temperature of about 80 degs. F. The treatment varies for the different varieties; some of the early-flowering sorts are best suited by a rather lower temperature, and do not need quite so long a period of treatment; the late varieties, as a rule, require a high temperature, and a protracted stay in the hot room. In fact, each variety has to be made the subject of special study, and to be treated in exact accordance with its requirements. The kind of soil in which the bulbs have been grown, the temperature in which they were growing immediately before special treatment began, the exact temperature maintained during that treatment—all these and many other details must be carefully and accurately recorded. The least inaccuracy of observation might lead to failure, which partly explains why the treatment is not yet of general application. After the expiration of the warm period the bulbs are removed to a cool place, where they remain until the end of August or beginning of September, when the bulbs are potted.—Gardeners' Chronicle (English).

### THE BOSTON SPRING FLOWER SHOW.

By W. N. CRAIG, MASSACHUSLIES.

The Boston Spring Show, held in Horticultural Hall, Boston, March 18-21, was the finest the Massachusetts Horticultural Society has ever held, the several halls being well packed with splendid exhibits. It was too bad that more space could not be had, as some plants could not be accommodated at all. The arrangement was admirable and the plants all seemed as fresh when the show closed as at the opening. Climatic conditions were perfect and the attendance a record one. The one disappointing thing was the painfully slow judging which should have been completed the first exening and the general criticism of the judges' tardiness will undoubtedly bring about a change at future shows.

As one who was privileged to see both the Boston and New York Shows it gave me much pleasure to see how successful both were. The fact that there were but a few Bostonians showing at New York and no New Yorkers showing in Boston, did not affect the shows. New York suffered more in this respect than Boston, which secured the exhibits of such noted growers as Thomas Roland and M. H. Walsh. There were some \$15,000 in premiums at New York, and one-sixth of that amount in Boston. The New York show was naturally much larger than the one in Boston, as the schedule was a much more extensive one. The Boston show was a much more pleasing picture than the Grand Central Palace show, due to the numerous massive pillars breaking up the latter so much.

The "Midway" on the mezzanine floor in New York had no duplicate in Boston where no spaces are rented. It helped the treasury no doubt, but I hope the day will come when New York can run a successful show without these side attractions, some of which were interesting and attractive, others very decidedly the reverse.

As to the quality of the exhibits: New York excelled in orchid groups, Boston in specimens such as Cattleyas and dendrobiums; Dutch bulbous plants were equally good in each city. New York had better Schizanthus and hydrangeas; Boston was far in the lead with Cyclamens and Cinerarias. New York had the best groups of flowering plants and the rose gar-

dens were unique and beautiful. Boston had much finer specimen rambler roses and Dutch garden, which outclassed any other exhibit in either city. New York had the better azaleas and rhododendrons—although these latter were much below last year's quality, but Boston was in the lead with Acacias and Ericas.

Cut roses were more numerous in New York than Boston, but the quality did not average higher. Carnations were on about a par in both cities, as were Antirrhinums. New York had more sweet peas, but they were not equal in quality to those in Boston, neither were pansies. In palms, bay trees, fine foliage plants and ferns New York held a big lead, as Boston gives no classes except to palms at the Spring show.

Table decorations such as I saw were certainly no better than at Boston; one or two retailers in New York made splendid shows; in Boston eight retailers competed for table decorations, mantles, etc.

Boston is fortunate in having its own home exhibitors, and does not need to worry much about attendance. Some day I hope New York will be able to have a splendid horticultural hall worthy of the first city of the land. Meantime she is doing splendidly, and we in Boston, which ran the first

Ararm Sumvan, Alex. McKay,

FARQUHAR'S DUTCH GARDEN AT BOSTON'S SPRING FLOWER SHOW.
AWARDED A GOLD MEDAL.

real big show and made a financial success, are glad of it. The two cities can learn from each other, and I feel sure that in 1916 each will surpass their present year's record.

But to return to the Boston show—the exhibition of the American Rose Society filled a part of one hall and helped to make the exhibition more attractive. The orchid groups of Mrs. C. G. Weld (W. C. Rust, gardener) which won first prize; F. J. Dolansky and J. T. Butterworth were splendid. Donald McKenzie (gardener to E. B. Dana) had the six best specimen orchids. For a single specimen, Henry Stewart, (gardener to Miss Cornelia Warren), led with Dendrobium nobile carrying over 800 flowers. He showed a pair of other Dendrobes of equal quality.

For the best 300 foot group of flowering and foliage plants Duncan Finlayson (gardener to Larz Anderson) beat A. M. Davenport and W. W. Edgar Company, Martin Sullivan (gardener to William Whitman) had the best pair of specimen azaleas, and Henry Stewart the best single specimen. George Page (gardener to Mrs. Frederick Ayer) won both first and second for group of acacias covering 100 feet, with a beautiful lot of plants. Duncan Finlayson and Geo. Page had the best single specimens.

The leading exhibitors of roses in pots, or tubs, were M. H. Walsh, who had a carload of big plants; F. E. Palmer, W. W. Edgar Co., Thomas Roland and Henry Stewart. The Cinerarias were of grand quality.

Prizes in the first classes were divided between Alex. McKay (gardener of E. A. Clark), William Thatcher (gardener to Mrs. J. L. Gardener), W. C. Rust and Martin Sullivan. Cyclamens made a noteworthy showing, those from E. H. Wetterlow (gardener to Mrs. Lester Leland) William Thatcher, Alex. McKay and W. C. Rust being in the lead. Henry Stewart had the best Ericas. A magnificent lot of big specimens from T. O. Hatfield (gardener to Walter Hunnick) received a silver medal.

Bulbous plants were of grand quality and competition was keen. Prizes were divided between J. L. Smith (gardener to A. W. Preston), William Thatcher, Martin Sullivan, Alex. McKay, Duncan Finlayson,

Miss M. I. Rand, H. L. Rand, J. T. Butterworth, Geo. Barton (gardener to A. F. Estabrook) and W. T. Walke. Walter Angus (gardener to A. T. Lyman) and Ernest Townsend (gardener to Miss. Lathrop Brown's howed the best Camelias.

In carnations, roses, sweet peas and violets the commercial growers had things pretty much their own way. William Sim's grand collection of sweat peas and pansies, each well merited the silver medal awarded. Thomas Roland received a silver medal for

his beautiful collection of hard wooded plants. R. & J. Farquhar for their beautiful Dutch garden with windmill, received the highest award—a gold medal.

Among the numerous miscellaneous exhibits, T. Hatfield received a silver medal for his new Dendrobium Wellesley. J. L. Smith received a silver medal for a fine specimen of Brasso Cattleya Veitchii. W. N. Craig had a fine group of hard wooded and other flowering plants, also one of Dendrobes and Odontoglossums. A grand display of Darwin tulips from Mrs. A. Brech received a bronze medal. None of these were staked, as I noted many were in New York. Staking makes them simply hideous. The table decorations had ten entries each day. There were half that number of mantel decorations. Song birds dotted about the hall with a splendid ladies' orchestra helped to make the scene a typical spring one.

#### THE LIFE OF THE TREE.

The heartwood of tree is dead wood. It serves as a support for the live sap wood and the growing top, but otherwise is useless save for lumber. So far as the life of the tree is concerned, the heart of the tree might all be removed without loss. Many hollow trees have been filled with concrete for the purpose of strength and support and are growing with vigor. The living portion of the tree is just inside the bark, and is known as the Cambium. Injury to this is serious. To kill a tree all you have to do is to "girdle" it by cutting through the bark and Cambium layer. Trees in Winter.

### SEASONABLE NOTES ON THE GARDEN.

Springtime brings with it more important duties in the garden than any other season of the year; furthermore, it is the season at which many of the things essential to the future success of the garden should be done—things which either cannot be done at all or are accomplished at a disadvantage later in the season. Too frequently the early spring days pass before it is realized that plants are growing, that seeds are sprouting, and that the proper time for starting a garden has already passed; a garden should be made before, not after, the leaves are on the trees.

Lawns.—The lawn undoubtedly should receive the first attention in the spring. After the frost is out of the ground and as soon as the lawn is in such condition that it can be comfortably walked upon, it should be thoroughly raked with an iron rake in order to remove all dead grass and other material, such as stones, sticks and leaves. Thorough raking further tends to loosen the soil, thereby rendering the latter a good growing place for grass seed, which should be applied after the raking. On established lawns, reseeding is not always necessary, though it is not a bad practice to reseed all lawns lightly whether they seem to need it or not. After the seed has been sown, the lawn should be very lightly covered with either good rich soil, prepared humus, or thoroughly decomposed cow or horse manure. The purpose of this application is obviously to cover the seed and to give it a good rich medium in which to grow. Where soil or prepared humus is used, it is desirable to add some fertilizer, such as sheep manure; but where, on the other hand, the application is one of cow or horse manure and soil, the addition of sheep manure is unnecessary. It is difficult, however, to get cow or horse manure in a sufficiently decomposed state to use as a dressing for lawns in the spring.

After the lawn has been treated as above, it should be rolled with a heavy roller, or if this is not possible it should be well tamped. The winter frosts have tended to loosen the sod and have made the surface very uneven. Raking, dressing and rolling usually suffice to again put it into good condition.

Too much stress cannot be laid upon the importance of completing this spring treatment of the lawn as early as possible—surely before the grass becomes green. The seed must germinate and the young grass plantlets must become well established early in the season in order that the heavy spring rains may not be able to dislodge them, and, furthermore, that they may be sufficiently advanced in their development to endure the hot dry weather of the early summer. Depending upon conditions, the following amounts indicate in a general way what may be necessary to bring a lawn into proper condition: Grass seed, 25-50 pounds per acre; humus, manure, or soil, 3-10 tons per acre; sheep manure, 200 pounds per acre.

Trees and Shrubbery.—All pruning of trees and shrubbery should certainly be done before the starting of the buds in the spring. Trees should be pruned of all dead limbs and water sprouts, or suckers. Dead limbs are readily distinguished from living ones by the absence in the former of a green layer directly underneath the outermost layer of bark, a condition which, at least in young shoots, can readily be ascertained by the use of the thumb nail. Water sprouts, or suckers, are the small shoots almost invariably produced on the larger limbs of trees and frequently also on the trunk near the point at which the latter emerges from the soil. All of these should be removed. Aside from these general suggestions, it is

almost impossible to give directions which will enable one unfamiliar with the general subject of pruning to properly prune a tree. Where trees have been properly cared for in the past, however, it is very seldom necessary to remove limbs over  $2\frac{1}{2}$  to 3 inches in diameter. If there is any doubt in regard to the pruning of large trees, it is desirable to call in a known expert for advice.

Shrubs, while just as amenable to good and proper care, suffer less from neglect than do trees. A general rule applicable to the pruning of shrubs is that earlyflowering shrubs are preferably pruned after blooming, and late-flowering ones in winter or early spring. Earlyblooming shrubs usually produce their flowers on wood developed the previous season, while the later-flowering ones produce them on new wood. The golden bell, or Forsythia, for instance, blooms in the very early spring on the woody growth made the previous summer. If this were pruned away in the spring all the "flower wood" would be destroyed. On the other hand, hydrangeas bloom late in the season on the ends of shoots produced that year from buds on the old wood. It is usually customary to prune hydrangeas (in the spring) back to two or three buds, as the flower crop is thereby not endangered. If good results are to be obtained from the pruning of shrubs, therefore, the time and habit of their blooming must be carefully taken into account.-Missouri Botanical Garden Bulletin.

### COELOGYNE CRISTATA.

The accompanying illustration of the beautiful specimen Coelogyne Cristata is one of a group of fifty similar specimens grown by George Jacques, head gardener on the W. G. Mather estate, one of the most attractive estates in the vicinity of Cleveland, Ohio, and widely known for the wonderful displays of flowers and fruits grown out of doors and under glass throughout the year under the direction of Mr. Jacques.

The plant was grown in a nine-inch pan, had forty-three trusses and carries two hundred and fifteen flowers when photographed.



SPECIMEN PLANT COELOGYNE CRISTATA.

# Growing Exhibition Dahlias

By P. W. Popp, New York.

June first is early enough to plant dahlias in the vicinity of New York. A dressing of cow manure should be applied to the ground in the spring, dug in, and the ground allowed to settle and warm up. Mark off the location of the rows and drive in the stakes; the stakes with square corners are preferred, as the corners offer more resistance, and are not so apt to lean over when the ground is wet, the wind blowing, and a heavy plant tied to them. Stakes are placed 3½ feet apart in the row; the rows 4 feet apart. If space is limited, early flowering asters, or other early flowering plants may be planted between the stakes; there is a great difference of opinion among dahlia growers as to the choice between the dormant tubers and the "green plants." While the "green plants" if kept growing right along without a check until planting time, undoubtedly give good results, yet it very often happens that in the rush of other work, or unfavorable

taining the tubers, the bottom side up, the drainage holes giving sufficient ventilation to prevent heating, this being a better method than storing in sand. If the sand should be moist it has a tendency to start the growth, while if the sand is dry enough to be safe, it absorbs the natural moisture of the tubers, which become weak and useless. When planting time arrives, dig holes a foot or more square and 8 inches or 9 inches deep, planning to have all the holes the same side of the stake the whole length of the row. This has a two-fold purpose, it saves damaging the tubers when cultivating between the rows, also acts as a guide for safe digging of the tubers in the fall. When the holes are all dug they are treated to a double handful of pulverized sheep manure, which is thoroughly mixed with the soil; then a large pailful or potful of water is poured in. When the ground has settled all is in readiness for planting; if tubers are planted plan to



P. W. POPP IN THIS GARDLY OF DAHLIAS. THE NEW GIANT NEWPORT SINGLES AND GERMAN CACTUS DAHLIA, "VATER RHEIN" IN TOREGROUND.

planting conditions, the pot plants do not get the necessary shift and become pot-bound, dry out a couple of times, then become hard and stunted. A stunted dahlia plant is absolutely useless, and if planted only invites disappointment and failure. For those reasons I prefer and usually plant tubers, selecting medium sized, plump clean tubers. Only one tuber is necessary, but if there is any danger of cutting too near the "eye" the second one is allowed to remain, the fresh cut is immediately dipped in a saucer of flowers of sulphur and any that sticks is allowed to remain, but the sulphur is not rubbed in; any bruises or abrasions are sprinkled with the sulphur also; this work is usually done about April 1 when the dormant clumps are removed from the cellar. Each variety is labeled and placed in flats, and stored in a cool dry cellar until wanted. If there is any danger of the tubers shrivelling, a second flat may be placed over the one con-

have the tubers 5 to 6 inches below the soil when finally levelled up, place the neck of the tuber as close as possible to the stake, cover with just enough soil to barely cover the tuber. The filling of the holes with water I consider very important, as it supplies the necessary moisture to promote quick root action, the drier covering offering less resistance to the young growth when penetrating the ground. In a few days after planting growth will start—and so does the cut worm—the black fellow with the tough hide. He is quickly taken care of by mixing a quantity of corn meal, with just enough Paris green to slightly color it a pale green; a pinch of this mixture is placed near each plant just before nightfall, when there is no danger of rain falling; a second dose is rarely needed, and the dahlia has gotten rid of the first enemy. It is always well to have a few plants in reserve, to replace cripples or fill in blank spaces. For this

10 x 5 x 3 inches deep, placing the tubers cross-cornerwise, the tip of the tuber close up to the corner to assure close planting to the stake. Ordinary potting soil is used, with the addition of a small quantity of sifted coal ashes, about 1 part ashes to 5 or 6 soil; this forms a good porous mixture to which the roots will cling when removed from the basket. These started, plants grow right along without a check. Cultivating must be done regularly to keep down the weeds, this cultivating gradually fills up the depressions in which the dahlias have been planted and in the meantime some of the tubers have developed two or more shoots; the most promising one being selected, while the others are carefully twisted off instead of being cut. A single stem plant is preferred, branches are not allowed to form nearer than 12 or 15 inches from the ground. This allows free circulation of air, freedom in cultivating, and enables one to see the slickers as they appear. Buds will sometimes appear early in July; these should be removed at once, as the blooms are usually inferior and if allowed to remain the plants generally become stunted afterwards and never fully recover until too late—the idea is to keep the plants growing. We use sheep manure alternately, with any other kind of fertilizer that promotes rapid growth; an application of potato fertilizer is very beneficial, a sprinkling of "Bon Arbor" is applied around the plants about every ten days, until about August 1. Ten days later a good dressing of air-slaked lime is applied and raked in. This corrects any acidity in the soil and also releases the latent properties in the fertilizers that have been used; in the latter part of August a sprinkling of bone meal is scattered around. This is pointed in with a spading fork, thereby breaking up the surface feeding roots, checking the rampant growth and inducing the plants to set buds. For long stems and large flowers disbudding is resorted to, removing all side growths from the branches excepting the two most promising ones next the main stem; these are allowed to remain for future blooms. When the buds are well set, an application of soot or wood ashes is applied to the ground; this keeps the foliage green and lustrous and intensifies the colors; in very dry weather the plants are watered, giving enough for a thorough soaking each time. Spraying the plants overhead at sundown after a very hot day is very beneficial. Insecticides are used as a precautionary measure throughout the growing season. Aphine is a sterling remedy for thrips and White Fly is used with regularity and applied to the underside of the leaves. Gishurst's compound and sulpho tobacco soap may also be used to good advantage. If the garden is equipped with hydrants and a force of water is available, a quick and convenient method of applying these hard substances is to use a contrivance termed the Universal soap mixer, consisting of a brass cylinder with a screw cap, fitted with a coupling attachment to fit a 34-inch tap. The chamber is filled with the soap or compound, the cap screwed on and the hose attached to the lower end of the "mixer." In cutting blooms stems are cut just above a joint, the ends of the cut stems are then split through the first joint and placed in cold water in a cool place free from draughts. When it is desired to hold the blooms for several days it is best to place the freshly cut stems an inch of their length in hot water and allowed to remain until the water has cooled and are then placed in cold water. A lump of charcoal added to the water keeps the water pure, but the use of iced water is to be discouraged as the flowers quickly droop when removed to a warm room. The exquisite colors and beautiful forms found among the newer types of dahlias are well worth all the care and attention that we can bestow on them, coming

purpose we use small fruit baskets measuring about

in at their best when nearly everything in the garden is sere and yellow. The accompanying photograph was taken October 1, 1914; over 1,500 dahlia blooms were cut during the 10 days before that date, 5 to 10 inch blooms, according to variety, on stems 2 to 5 feet long. In the immediate foreground is a block of the new Giant Newport Singles; between the center and extreme right hand corner may be seen a group of the Giant German Cactus Dahlia, "Vater Rhein." These were all 11 feet high and profusely covered with 7-inch blooms on stems  $3\frac{1}{2}$  to 5 feet long.

#### A PLEA FOR ROCK GARDENS.

By Luke O'Reilly, New Jersey.

While visiting the recent show held at the Grand Central Palace, New York, the Rock Garden exhibit attracted my special attention and I observed that it also attracted the attention of many other visitors. Rockery plantings are suited to our climatic conditions hereabouts and we should see more of them. For many years I was connected with some of the large estates in Ireland where immense rockeries are to be found on nearly all estates, some probably a hundred years old. While serving for some years on the engineer corps the opportunity came to me to visit the principal sections of England, Ireland and Scotland, and having been born on a nursery I always had the inclination to visit the herbaceous gardens and rockeries of note during my traveling. It seems to me that this is a branch of gardening that has been sally neglected in this country and which should receive more consideration as rockeries furnish one of the most pleasing phases of a garden, large or small.

It is no difficult task to construct a rockery. The old stumps about the place can be utilized together with the small boulders for foundation work. Some of the most attractive rockeries are formed after miniature mountain ranges flanked by shrubbery. Water is essential in a dry climate to produce an effective rockery and should be provided for and freely applied in dry season.

Native ferns in shaded spots of the rock garden are most attractive. Some of the most effective rockery plantings are found among the following-named alpine plants: Abronia; Campanula carpatica; Dianthus Deltoides, Dentosus, superbus; Eschscholtzia caespitosa; Gentiana acaluis; Gypsophila muralis, repens; Leptosiphon auraus; Linaria alpina; Mesembryanthemum album; Papaver alpinum; Primula Rosea; Saponaria ocymoides; Saxifraga; Sedum; Veronica.

## FAVORITE PLANTS FOR ROCKERIES.

Few genera of plants provide a larger number of species adapted for the decoration of the Rock Garden than the Harebells, or Campanulas. Among these we have great diversity of character and wide distinctions as regards height, for while some species trail so closely to the ground as scarcely to lay claim to height, there are others with flower spikes which rise to 6 or 7 feet.

Wherever rock gardens are planned alpine Campanulas have become indispensable. Campanulas are easily managed, and thrive best in a rather light and fairly rich soil.

It is a boon to the lover of alpine flowers to be able to maintain the beauty of his rock garden or simple rockery after the gents of the early spring have passed away, and, now that rock gardening is so popular, there is more need than ever to urge the claims of the later flowering subjects. One of these is Gypsophila repens, a valuable plant, which for months at a time gives an abundance of small flowers reminding one of those of its ever-popular

sister flower, G. paniculata, but borne on a prostrate instead of an erect plant.

G, repens is a valuable plant for hanging over large rockwork, making trailing growths some feet in length, above which, at the extremities of the branches, are borne clouds of small, white flowers, which may be em-

This gypsophila is easily grown on any rockwork, or even on the level, in light soil, and will thrive either in

ployed in room of those of G. paniculata.

sun or partial shade.

In almost amazing variety exists among the Sedums, or Stonecrops, and anyone owning a large collection of these useful flowers will derive much enjoyment from a study of their beauties and the numerous points of interest they reveal. They comprise plants of very different habit, some forming rosettes of Houseleek-like growth; others creeping close to the ground and covering it with a dense carpet of small leaves, smothered, when in bloom, with flowers; others, again, are of more erect growth, often with flat leaves, and crowned with heads of bloom; while another section consists of plants of trailing growth, either with flattish leaves or with thickish branches clad with pointed leaves. It is, indeed, possible to form a collection of rare beauty in many features, not the least of the charms some of these plants exhibit being the tints of the foliage or the downy atpearance caused by the down or tiny hairs on the leaves.

Sedum pilosum belongs to the class first named, with foliage arranged in rosettes like those of a Sempervivum, and covered with a fine down. Above the leaves are borne the pink flowers, which open about June and July, and combine with the foliage to form a satisfying feature

of the rock garden.

The mossy saxifrages are exceedingly numerous, and deserve a share of the attention now devoted to their allies of other sections. They present charming cushions of moss-like growth, and often of the most exquisite shades of green, sometimes charmingly tinted with red or brown at different seasons. They vary considerably in size of foliage and in color of flowers, but none are more attractive than the species with small, closely-set leaves, truly moss-like in their appearance. In autumn, winter and early spring they are generally masses of the most vivid green, and are thus beautiful at a time when the rock garden stands in need of all the attractions it can present.

This saxifrage and all its forms delight in a somewhat shady place, yet not under the drip of trees. A north, northeast or northwest exposure suits it best. In a sunny position it often suffers in dry weather, and is disfigured by brown patches appearing in the centre. In continued dry weather it appreciates a good soaking of water.—

Extracts from Gardening Magazine (English).

#### HOW TO GROW HOLLYHOCKS.

There are many who are deterred from growing these grand plants by the prevalence of the disease, or, more properly, the fungoid pest, that is likely to infest them, the same pest attacking more or less all the members of the Mallow family, of which the Hollyhocks are the most important of the garden representatives. But one may say that Hollyhocks are indispensable in the late summer and autumn, and they cannot be let go lightly. In strong soils they are nearly always healthy, a plant lasting for several years, throwing up several grand spikes and being well clothed with foliage to the ground. The difficulty arises in the lighter soils, for the Hollyhock is what gardeners call a gross feeder, rejoicing in a soil either of loam or lime, in any case rich and deep and also well matured. There can hardly be a place whose con-

ditions are worse for Hollyhocks than the present writer's garden—on a sandy upland. Here all flower-borders have to be artificially made; but where Hollyhocks are to grow it is made deeper still, the sand taken out to a depth of 3 feet and the place filled with the best stuff we can get together, with the ashes of the fire-heap plentifully admixed and some good manure from 1 foot to 18 inches down.

For flowering the same year, Hollyhock seed may be sown in heat as early as the first days of January; but it may be sown a month or six weeks later if the plants are pushed on as quickly as may be. There is a good deal in getting a strain of seed that will give the right-shaped flower. The best kind has a distinct guard petal or outer petticoat, and the rising centre is only moderately filled. In this case the color also is much enhanced by the play and transmitted glow of light and tint within and between the inner petals. All this is lost in the round, tight flower, where the light can only play upon the outer surface.

There is much beauty of tender coloring among some of the single Hollyhocks, but of these the ones that are easiest to grow and are the most generally useful are the varieties of Althaca ficifolia, the fig-like shape of the leaf accounting for the specific name. The best are those of sulphur and white colorings, which should be secured if possible, or there will probably be a preponderance of



THE UNDERGARDENEPS LODGE, TEVEDON HALL, SUFFOLK, ENGLAND,

flowers of a poor, washy, purplish pink. But if mixed seed is sown, some will be sure to be yellow and white, and seed for further use can be kept from these.—*The Garden*.

#### AN UNDERGARDENER'S LODGE

The picture accompanying these notes represents a bothy or undergardeners' lodge in one of the best of the gardens of England, that of Elvedon Hall, Suffolk. This is a thoroughly modern structure, as well fitted in its interior as it is handsome and attractive in its exterior, and furnishes accommodation for a staff of eight or nine assistants, including the foreman. Each man has his own dormitory, while there is a main mess room, a recreation room and baths. A woman is engaged to keep the rooms clean and in order, and to cook the meals, as is general in such bothies.

Send your subscription for The GARDENERS' CHRONICLE, \$1.50 a year, to Chronicle Press, Inc., 286 Fifth avenue, New York.

# Work for the Month of May

By Henry Gibson.

The planting of trees, shrubs and herbaceous perennials should be pushed ahead with all possible speed, so that they may become established before the hot weather overtakes us.

Plants that haven't got a thorough hold on the soil soon suffer from drought, which if prolonged for any length of time means the finish of many of them. True, losses may be prevented by thorough and timely watering, but at this busy season when each department on an estate demands its quota of attention, there is little time for extra care once the planting operations are completed. Where help is limited as is the case on many estates, and this year more so than ever, the gardener often finds it difficult to give much more than passing attention to many things, hence the importance of pushing ahead and doing good work at the proper time.

#### THE VEGETABLE GARDEN.

Work in this department calls for a good deal of caution during the month. Everyone plans not to be behind in planting out the tender stock, but care should be taken not to rush the season and get caught by a late frost. Ailsa Craig onions, Leeks and Globe artichokes should be planted out on the first favorable occasion, selecting if possible a cloudy day. The land for these should now be in a mellow condition if it has been previously prepared. Onions may be planted in rows eighteen inches apart and one foot between each plant. Leeks we prefer to plant in single rows in a trench and one foot between each plant. For Globe artichokes, four feet between the rows and three feet from plant to plant is a fair allowance; on soils that dry out rapidly each of these crops would be benefited by a light mulch of well decayed manure soon after planting to conserve the moisture.

## EARLY CELERY.

This crop should be put into its permanent quarters during the month. A double row in a trench is the most popular method practiced. If possible have the trenches where water is convenient; celery is a moisture-loving plant, and while it resents a sour, stagnant soil, it likes plenty of moisture about its roots.

Seed for the main winter crop of celery should be sown now. Sown with the object of transplanting once or twice before setting out permanently is more conducive to satisfactory results than when transplanting is not practiced. Transplanting checks the development of a long tap-root and encourages the growth of a system of fine fibrous rootlets which every celery grower admires.

Tomatoes, melons, egg-plants, pepper, cucumbers, etc., should all be where they can be exposed to full air night and day for a couple of weeks before being planted out. With such treatment the plants will undoubtedly lose the rich green appearance which a warm moist greenhouse gives them, but they will ultimately be the better for it, inasmuch as there will be little or no check when they are set out.

Melons and cucumbers, together with summer squash and pumpkins, should be planted on small mounds, with some manure beneath. Egg-plants and pepper require a light rich soil. A sheltered position where the sun will not fail to reach them is preferable, and a distance of two feet each way between the plants will be about right.

Tomatoes may be trained to a trellis or supported by good stakes five or six feet long driven firmly into the ground previous to planting. The rows should be at least four feet apart and three feet between the plants.

In planting out any of these plants care should be taken

that they are thoroughly watered on the morning of the planting out day. Nothing spells failure sooner than setting out a plant with a dry root-bound ball.

#### THE GREENHOUSES. (Roses.)

Generally speaking, the month of May is looked upon as the time to replant the rose-house. In preparing for another season supply of roses there are three essentials that should not be overlooked, viz.: clean bench, good soil, and strong, vigorous plants. If one has these the battle is half won, and should the results not come up to expectations with these requirements, it will be evident that it is often the culture that is at fault. Many notes and observations will have been made concerning the culture of different varieties of roses during the past year, and it is these observations reduced to practice that are the really important factors in rose growing. Personal experience and observation of the vagaries of different roses, and methods of culture are far more conducive to success than a whole book of arbitrarily written notes.

#### CARNATIONS.

The old plants are still blooming freely, and with a top dressing of some good concentrated fertilizer they will continue to be first-class blooms for some time yet. Bone-meal or a mixture of loam and sheep manure in equal parts makes a very good top dressing.

Where field culture is adopted during the summer months the young plants should be set out as soon as the weather is settled. For some time before being planted out, however, they should be well hardened off, so as to avoid any danger of giving the plants a check. Two or three weeks in a cold frame will accustom them to outside conditions. Fifteen inches apart each way is a good planting distance, insomuch as the cultivation can be run both lengthwise and crosswise, thus saving much hand weeding. Pinching the growths should be regularly and carefully attended to so as to get nice bushy plants.

In many localities indoor culture is the only method practiced, which undoubtedly tends to produce early blooms, but for growing plants that are to provide a constant supply of blooms all through the winter we believe the field culture is second to none.

# ANTIRRITATIONS FOR WINTER FLOWERING

Where these subjects are wanted to provide a supply of flowers throughout the winter the cuttings should be got into the sand about the end of the month. Make a careful selection of those that have given a good account of themselves in the past, see that the cuttings are protected from the sun, and use every effort to prevent wilting. Seedling raised at this time will prove equally as satisfactory as cutting; in fact, we think that they make more vigorous plants. As soon as they are large enough to handle they should be picked off into flats about inches apart, and subsequently potted into three-inch pots. About the first week in August they will be ready to be planted in the bench, where with good culture they will produce fine spikes of flowers from the early part of December on through the winter months.

#### STOCKS.

Stocks also provide fine material for cutting during the winter months. A batch started during the present month will come in early, and if other sowings are made at intervals of a month a continual supply can be maintained. Plenty of sand should be used in the soil when the seed is sown, as the seedlings have a tendency to damp off;

(Continued on page 201.)

# Cultural Notes on Amaryllis Hippeastrum

By John Scheepers, New York.

It is very gratifying to notice the interest that has been shown in recent years, by owners of private estates in this country, in the collecting of rare varieties of this magnificent plant, Amaryllis Hippeastrum, of which one can see such marvelous collections in European countries.

After carefully canvassing some of the few growers in this country, I find about as many different ways of handling these bulbs as there are collections existing; after studying eminent data, I have compiled a short treatise which, if followed up, will insure success to the careful grower.

Purchase the highest quality bulbs obtainable and, if you are willing to spend substantial sums, you can procure bulbs of types that will produce immediate fine results; but in case you are desirous of working up a beau-





tiful collection, and you cannot afford to invest a large amount of money, it is advisable to purchase a certain quantity of unnamed seedlings, in which sometimes one may find a very rare and unusual color. Every private place should have a small batch of these beautiful plants, discarding from year to year the common colors and saving only that which is best, adding from year to year a few unusually fine varieties, hybridizing from those.

Owners of rare varieties in Europe hold their finest colors at very high prices; in fact, one is but rarely able to induce a sale at any price; this is the reason why I consider it of great importance that we raise and improve our own varieties in this country.

After you get your bulbs, keep them dry and protect them from the frost; keep them fairly warm; plant them in pots when the frost is over, about March. Do not plant the bulbs too far into the pots (see Fig. 1) and put them, pot and all, under a good deal of earth, in other words, plunging them.

In England the pots are plunged in tan bark on the benches, and this is a very good way of growing them, but one must see to it that the tan bark is carefully levelled off, and we must also caution our friends that the tan bark in England may contain different properties than the article does in this country.

Amaryllis Hippeastrum wants to make roots over the top of the pot and likes to be placed on top of the pot.

Immediately when put into the greenhouse one should take care to give them bottom heat, having the space underneath the bench boarded up, doing so, at least, until growing has fully begun; it is still better doing so a few weeks longer.

This type flowers first and makes leaves thereafter, and they scarcely need any water until the bud has fairly come out (see Fig. 2). Then watering should take place with very slightly heated water, in order not to cool the soil.

When summer is over do not water them any more, but allow them to dry off until October.

Take the pot out, cut the leaves and make the bulb half-way bare. (See Fig. 4.)

The roots keep much longer in this way. Bring them

to their winter quarters, but do not plant the pots into the earth; better put them on boards and heat them (stove heat from above) to dry roots quickly and keep them warm (not hot) throughout the winter. When the frost is over, take them from their pots and put them in others with fresh earth; but take care not to use pots that are too large, they like a pot which they can fill in one year's growing; they must be thoroughly and firmly established.

As to forcing, one may follow the same directions, only plant them as early as possible and do not water them until the bud is fairly half way up. (Fig. 3.) Give them enough heat to grow quickly, but mind to give them fresh air (but not too cold) in order to have strong flowers and sufficiently strong stalks.

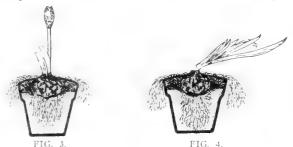
When the flowers are gone, do the same as if they were planted in March, not cutting the leaves before October, and you will have strong bulbs as the result.

Pot growing is to be preferred above open ground growing, as the bulbs are of a better substance and give more plentiful flowers.

The deciding point is this, that when grown in pots the roots are kept alive and bulbs start growing on these, while open ground bulbs always lose their roots and have to make others first, which makes a difference as to early flowering and growing, which is easy to understand.

#### HYBRIDIZING. .

Select the best varieties and cross the flowers the latter part of February, taking care only to work with those plants, which in your judgment produce the best flowers and what you consider the finest colors. Perform the pollinating on a bright sunny day, when you will usually get very large capsules of fine seeds and several hundred to a capsule. Plant the seeds on benches in rows ½ inch



apart and 2 inches between rows, in 2 inches of rich soil, about the middle of May. They germinate in about 2 weeks.

As soon as three leaves are perfected put them into three-inch pots, using soil not quite so light in texture as the seed bed, to which is added thoroughly decomposed cow manure.

In November the seedling plants are shifted into 5-inch pots.

In the spring they are again shifted into their flowering pots, six or seven inches, and grown on in a temperature of from 65 to 70 degrees. With this treatment nearly half of the bulbs will flower in 20 months.

To get a number of bulbs into flower at the same time, a good plan is to store the plants in fall, after the first flowering, under a bench in a cool greenhouse, the pots lying on their sides, and leaving them that way until the following January, when they can be placed on benches in a light greenhouse and started into growth in a tem-

(Continued on page 188.)

# Flowers for the Hardy Garden

By Bertrand H. Farr, Pennsylvania.

The thought of a garden instantly suggests to us a place of quiet seclusion, away from the stress of the outer world, a retreat in which the cares of everyday life fade away into forgetfulness. If it is an old, old garden that comes to my mind, we picture it filled with the old-fashioned garden perennials that still flourish, though so far back as we can remember they have always existed there; and that is why the hardy plants have always appealed to me. They are permanent features of the garden, and there seems to be a sort of personality about them that makes them seem like old friends as season after season we see that they are safely tucked away for their long sleep under their snowy blanket.

With the first mild days of spring how eagerly we watch for their awakening, how it thrills us as we discover the first to appear, the dainty snowdrops, chionodoxas, and the little dwarf irises, followed in quick succession by the tulips and daffodils, their golden cups standing out in bold relief against those sluggards, the pæonies, which are just awakening and beginning to push up their long crimson stems.

Everywhere the garden teems with new life, and our perennial companions have begun another cycle of their existence which will hold us entranced again until the last of the pompons succumb to the killing November frost.

This description could be broadened to describe the average hardy garden by saying that it is made up of but little more than a dozen standard species varied by the odds and ends that each individual adds according to their own taste and fancy. The principal motifs of this cycle of the hardy garden, then, are almost entirely made up of the following:

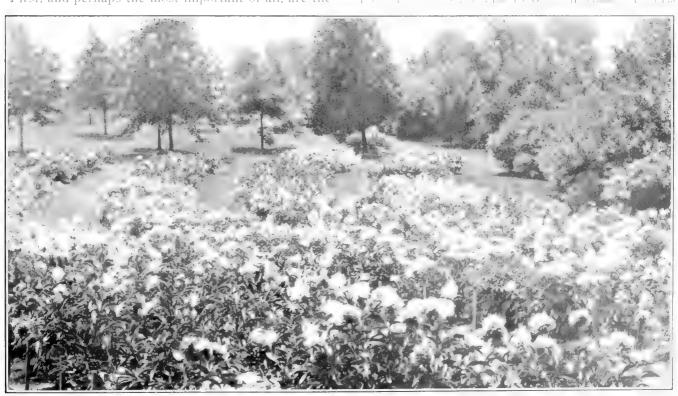
First, and perhaps the most important of all, are the

irises, the passing of which through the spring and summer months is like that of a grand procession, the first glimpse of which may be had when, in the sheltered places in February, such gems as Iris Reticulata and Sindarensis first appear. Then come the dainty Pumilas in March, followed by the various dwarf forms in April and May in ever-increasing boldness of form and color, until June ushers in the great Germanica family, the bearded irises with their broad masses of color.

In quick succession come the tall Sibericas and the still taller Spuria varieties of Aurea, Monniere, and Gigantea, until with a great burst of splendor, comes Iris Kaempferi, the crowning glory of all with its great blooms a foot in diameter, rising on tall stems to a height of five feet—the royal family, arrayed in richest blue, and purple and gold—and the pageant comes to an end, under the blazing August sun.

Again in November, the Crimean Irises, yielding to the allurements of the mild summer days, put forth their blooms here and there as if to remind us of their existence and their impatience in awaiting the coming of the spring

The charm of the iris appeals irresistibly to those whose taste for the refined and delicately beautiful leads them to seek a close acquaintance with it. The ethereal beauty of its soft irridescent coloring and its frail, orchid-like formation is likely to pass unnoticed by the casual observer. But to the enthusiast there is opened a field where he may have full scope for his wildest fancies. For there are irises for every conceivable situation, for nearly every month in the year—there being about one hundred and seventy distinct species, with the varieties running into the thousands.



AN ATTRACTIVE DISPLAY OF PAEONIES AT HIGHLAND PARK, ROCHESTER, N. Y.

While the German or Bearded Irises are still in the height of their glory, the pæonies appear, and for the time being overshadow everything else. Throughout the month of June their gorgeous blooms, rich with the warmth of their glowing colors and intoxicating in their delightful fragrance, make a universal appeal to all human interest.

Here again is a field broad enough in its scope to captivate and occupy the undivided attention of anyone who has a tendency to confine himself to some special hobby. I have been giving the pæonies my undivided attention for twelve successive Junes, and am just be-

ginning to feel that I know them.

In striking contrast to the pæonies are the stately delphiniums, with their tall spikes of bloom rising to a height of five and six feet, supplying our gardens with a wealth of blue that would be sadly lacking were it not for these magnificent plants, combining the soft azure of the forget-me-not, the rich blue of the Gentian, the sapphire and royal purples, all suffused with a beautiful rose iridescence impossible to describe. Beginning in June with the pæonies, they remain with us throughout the summer, sending up a succession of their tall spikes until the end of the season.

The golden trumpets of the Hemerocallis are an important feature of the garden at this time, forming a pleasing contrast to the blue of the Delphiniums, beginning in May with Middendorfii, through June with Florham, Gold Dust and Flava, into July with Thunbergii and Luteola, and ending with Ochroleuca and

Citrina the last of July.

Here and there standing out in bold relief against a background of shrubs the Oriental poppies flaunt their dazzling, barbaric colors, commanding instant attention and bidding defiance to everything else in the

garden.

Next to the irises and pæonies in importance are the hardy phloxes, which fill in the gap during the late summer and early autumn season, without which our garden would be bare of color. For bold color effects in large masses, they have no equal in their season of bloom, covering almost every shade from delicate white, flesh and soft pinks, through salmon, orange, and fiery scarlet, to deep blood-red and crimson dark maroon, purple and amaranthe. There are pale mauves and lilacs, soft blue and lavender, deep lavender, and the dark metallic blue of "Lord Raleigh," as seen in the morning and evening light, which changes in bright sunlight to the darkest purple.

In the autumn there are hardy asters, or Michaelmas Daisies as they are called in Europe, which along with the Golden Rod form the color scheme of our glorious American autumn, their solid sheets of blue of every shade and their rich purples contrasting harmoniously with the bright yellow sunflowers and with the golden and bronze of the Heleniums. Following these are the Anemone Japonicas, their masses of white and rose yielding at last to the first hard frost of the autumn.

Were it not for the hardy chrysanthemums, the pageant would now come to an end, but in the dull November days when every flower in the garden has succumbed to the frost, it holds full sway with a wealth of rich, Oriental colors unaffected by ordinary freezing, the shades of yellow, mahogany, bronzy red and brown, harmonizing with the autumn tints of the woodlands.

There are other things without which no hardy garden is complete: The Funkias and Trollius in early spring, primroses and Pyrethrums in May, Gaillardias and Shasta daisies which keep up a mass of bloom all summer, the Rudbeckias and Salvias and Veronicas, and hundreds of other plants which may be included,

but the main display falls upon the class of plants I have enumerated. The other plants could be dispensed with, but no hardy garden could be thought of without having a representative from the list I have given.

There are bi-ennials which are indispensable in the hardy gardens; the tall hollyhocks, foxgloves, and Canterbury Bells, but the bi-ennials are transient like the annuals which give us but a short season of bloom and die, and can never gain the same hold on us as the constant perennials that may still exist in the old garden where we spent our childhood, planted perhaps by other hands, breathing the spirit of the past into the living present.



AN EFFECTIVE PLANTING OF PALONIES ON PRIVATE GROUNDS.

I never dreamed when I first became interested in the paony to what extent my admiration would lead me. Fifteen years ago, I only knew the old-fashioned varieties, commonly seen in every garden. I thought they were beautiful and I determined to have more of them, and if possible to have a complete collection. No one could be more surprised than I to find that the list of varieties ran into the thousands, or that there existed any such wonderful creations as the varieties I now possess.

# NOTES ON AMARYLLIS HIPPEASTRUM.

(Continued from page 186.)

perature of 60 degrees. For the purpose of getting a number of these bulbs into flower, it is necessary to move them into a higher or lower temperature, according to the development of their spikes. For such purpose the plants may be grown during the summer in frames on the open ground without sash.

Do you contemplate attending the convention of the Society of American Florists and American Association of Park Superintendents or summer meeting of the National Association of Gardeners in San Francisco? If so, you should study the itinerary of an interesting trip to California in August on page 193, decide on your plans and make your reservations now.

THE

# GARDENERS' CHRONICLE

OF AMERICA.

Published by

# THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK. MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

::

Published on the 19th of each morth. Advertising forms close on the 1st preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### ASSOCIATION OF GARDENERS NATIONAL

President, J. W. EVERITT, Glen Cove, N. Y.

Vice-President, W. S. RENNIE, Ross, Cal.

Treasurer, JAMES STUART, Mamaroneck, N. Y.

Secretary, MARTIN C. EBEL, Madison, N. J.

#### TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; Wm. Turner, Mendham, N. J.; Geo. W. Hess, Washington, D. C.; John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

## AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President,
GUSTAVE X. AMRHYN
New Haven, Conn.

Secretary-Treasurer, ROLAND W. COTTERILL, Seattle, Wash.

JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

Vice-Presidents, CARL W. FOHN, JOHN HENDERSON, Colorado Springs, Colo, Montreal, Canada. CHARLES HAIBLE, J. H. PROST, Newburgh, N. Y. Chicago, Ill.

Vol. XIX.

APRIL, 1915.

No. 4.

In commenting editorially on the success of the 1914 International Flower Show in these columns a year ago, we remarked: "We have always been firm believers that a flower show in New York City can be made as popular among society folk as the horse show is, but whenever expressing such an opinion we are usually told to 'wake up.' We are not given to prophesying, but we venture the prediction that 1915 will see our dream realized.'

The 1915 International Flower Show held in New York last month has fulfilled our prophecy, and now even those who have been most doubtful in the past of ever seeing a flower show made popular in our great cosmopolitan city are looking forward to see things accomplished a year hence that have never before been contemplated at a flower show in this country.

In the arrangement, color effect, grouping and quality of exhibits of the show just concluded, the critics were practically unanimous in their opinion that they were the finest ever produced on this side of the Atlantic. There was but one criticism heard, and that was on some of the

"trade" displays found at the show. We are sure, however, that the features objected to will be eliminated in future shows and that hereafter nothing will be tolerated among trade exhibits except genuine horticultural requisites. It must not be overlooked that an enormous monetary outlay enters into a flower show of the magnitude of the New York show and from the showman's viewpoint it is regarded as good business policy to dispose of all available space and so the fakir occasionally gets entry where he does not fit in. This happened in New York this year, but the experience has taught that the standard of exhibits for which trade space is sold must be of the very highest if they are to harmonize with the entire show, and judging by the reservations made for the 1916 flower show in New York before that of 1915 was terminated, it seems doubtful if all the legitimate trade exhibits can be provided for in another year.

The entire management of this flower show is to be congratulated on its great success, artistically, financially

and otherwise.

The personal sacrifices made by some of those of our wealthy classes to aid suffering humanity in the countries at war was daily evident at the New York Flower Show, where a tea garden was maintained for the benefit of the American Red Cross Society. The two most active workers were Mrs. Belmont Tiffany and Mrs. Wm. Kinnicutt Draper, who were to be found at the flower show morning, noon and night during its entire existence-yes, and many days before, planning and superintending the costruction of their garden—and directing the many details as chairman of their respective committees.

They were compensated, however, by the great success of their efforts, which also materially accrued to the success of the flower show. A permanent benevolence conducted annually under the auspices of these ladies in conjunction with the New York spring flower show, which has beyond all doubt become a fixed event, would prove a

valuable adjunct to it.

Attention is directed to the professional gardeners' section of the schedule of the Fourth National Flower Show, to be held in Philadelphia, under the auspices of the Society of American Florists and Ornamental Horticulturists, in March, 1916. Liberal provision has been made for the private grower and his co-operation is heartily sought at this national show. The Eastern States are to have three important spring shows next year in the following cities: Philadelphia, New York and Boston—a boon to horticulture—and it is to be hoped that the dates of the several shows will be so arranged that they may not clash with each other and will give opportunity for exhibitors to be represented at all three shows. It is none too soon to prepare for the Eastern horticultural festival of the spring of 1916.

Beginning with the May number we will establish a department which will disseminate reports and suggestions each month on the preservation of our native birds, under the direction of the Committee on Bird Protection of the National Association of Gardeners. Mr. L. P. Jensen, chairman, advises that his committee already has the assurance of co-operation from Dr. H. W. Henshaw, Chief of the U. S. Bureau of Biological Survey. The committee invites contributions to these columns from all bird lovers on their experiences on bird preservation.

# NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

The executive meeting of the trustees and directors of the National Association of Gardeners was held at the Murray Hill Hotel on Friday, March 19. The following members being present: John W. Everitt, Glen Cove, N. Y.: John F. Huss, Hartford, Conn.; William Kleinheinz, Ogontz, Pa.; James Stuart, Mamaroneck, N. Y.; Ant. Bauer, Deal Beach, N. J.; John F. Johnston, Glen Cove, N. Y.; Peter Duff, Orange, N. J.; William Turner, Bernardsville, N. J.; M. C. Ebel, Madison, N. J.

President Everitt occupied the chair. Mr. Kleinheinz, as chairman of the committee to secure private growers' exhibits for the Fourth National Flower Show to be held in Philadelphia, Pa., in March next, under the auspices of the Society of American Florists, extended an invitation to the members of the National

Association of Gardeners to participate in this show.

A motion was duly carried to accept the invitation of Mr. Kleinheinz with thanks, with the assurance that the National Association of Gardeners will co-operate in every way possible with the National Flower Show next year.

A discussion followed on the advisability of the N. A. G. providing medals which might be offered at shows when opportunity presents itself, which resulted in a motion that the association

have suitable dies made for medals.

A motion was next made to offer a silver medal at the chrysanthemum show of the American Chrysanthemum Society, to be held in Cleveland and at the special show in San Francisco this fall for the best display of six varieties, one of each variety, made by a professional gardener.

An invitation was received from the American Association of Park Superintendents to have the members of the National Association of Gardeners join the park superintendents on their trip to California in August to attend the summer meeting.

The matter of exploiting the Service Bureau on a more extensive scale to acquaint estate owners and others of its facilities was thoroughly discussed and some of the members of the board present were in favor of beginning an advertising campaign at once to accomplish the point in view. After more deliberate consideration it was deemed advisable to postpone action until the organization is in a stronger financial position as it was shown that a considerable expenditure would be required to carry out the plan to properly advertise the Service Burcau.

The Co-operative Committee reported that it would have a statement ready to issue in the next number of the official organ on the work it has done in connection with the educational course.

The meeting then adjourned to meet again at the call of the president some time during the month of July, and previous to the summer meeting to be held in San Francisco in August.

After an exhaustive effort to provide a study course on various horticultural subjects, through co-operation with one of the agricultural institutions, for members of the national association, not in position to avail themselves of a regular college course, the Co-operative Committee must report that it has not been able to approve any of the propositions placed before it, as of sufficient value to recommend them to the members. While some of the correspondent courses were found to possess considerable merit they lacked the qualifications, however, to furnish the knowledge that is not already gained through practical experience. The conclusion reached by the Co-operative Committee, as a result of its investigation, is that it will be impracticable to provide any really scientific, and at the same time practical education course, through any outside sources, which would not be entirely within the control of the national association itself. To provide this would require the services of some able instructors, which the association is not yet in a financially strong enough position to support. The Co-operative Committee will have some further recommendations to make on this subject, which it will submit to the members of the association for consideration at the next convention.

The Essay Committee has selected the following subjects for the essay competition for President Everitt's prize of \$100 in gold. The subjects have been arranged in four classes, as follows: CLASS I—Prize \$35 gold.

Subject Horticulture as a Profession, From the Standpoint of a Gardener, CLASS 2 Prize \$25 gold.

Subject—The Proper Grouping and Culture of Trees, Shrubs, Percannials and Annual Bedding Plants in the Ornamentation of Private Grounds.

CLASS 3 Prize 820 gold.

Subject-Preparation of Ground for and General Treatment of Hardy Herbacious Perennials. Naming a list of species (limited to one hundred) providing a succession of flowers throughout the entire season.

CLASS 4-Prize 820 gold.

Subject-How to Secure a Year's Vegetable Supply With the Aid of Cold Frames or Hotbeds (but no Greenhouses), Including Soil Preparation.

This essay competition is open to professional gardeners who are engaged in the capacity of superintendents, head gardeners or assistant gardeners

A competitor is entitled to enter in one class only.

The broadest latitude will be allowed in dealing with each subject.

The essays are limited to 3,000 words each.

The contest will close on October 1, the judges to report their decision at the next convention of the association, to occur the first week of December.

The Essay Committee will appoint five judges, consisting of three gardeners and two representatives of the horticultural press. Contestants will address William H. Waite, Chairman of Essay Committee, National Association of Gardeners, P. O. Box 290,

Madison, N. J., for further particulars.

These contemplating attending the summer meeting of the national association at San Francisco in August next, will be interested in the itinerary of the American Association of Park Superintendents (printed on page 193), which association has extended an invitation to the National Association of Gardeners, and the Society of American Florists, and their friends, to accompany it on its trip to San Francisco. Traveling in a body provides comfort and facilities not obtainable in traveling alone or in a small party, besides other enjoyments and good fellowship not obtainable otherwise. In addition to the invitation received from the Menlo Park, Cal., Horticultural Society, announced in the Chronicle last month, comes an invitation from L. P. Jensen, superintendent of the Busch estates, to visit the private parks of the late Adolphus Busch at Pasadena, Cal., where a royal welcome and reception is promised.

# AMONG THE GARDENERS

Frank Brunton has secured the position of head gardener to Mrs. James Brown, "Villa Vera," Locust Valley, N. Y.

Paul Dinkelacker, formerly of Cold Spring, N. Y., has secured the position as gardener in charge of the greenhouses on the George W. Perkins Estate, Riverside, N. Y., under Albert Milliard

Charles Millburn has secured the position of gardener on the A. N. White estate, Oyster Bay, N. Y.

# Of Interest to Estate Owners

The National Association of Gardeners maintains a Service Bureau which is at the disposal of all who may require the services of efficient gardeners in their various capacities.

The association seeks the co-operation of estate owners in its efforts to secure opportunities for those engaged in the profession of gardening who are seeking to advance themselves. It makes no charge for services rendered. It endeavors to supply men qualified to assume the responsibilities the position may call for.

Make your requirements known to

M. C. EBEL, Sec'y, National Association of Gardeners, Madison, N. J.

אור אורונות משמעות מווימים באור אורונים באורים 
#### BOSTON HORTICULTURAL CIRCLES.

Harry Stewart, gardener to Miss Cornelia Warren, Waltham, Mass., is an excellent plantsman whose exhibits won many prizes at the Boston Show. Ericas are particularly well grown here; there are also some splendid specimen azaleas. I doubt if there are any other grounds that can produce such magnificent plants of dendrobium nobile in a few years. Here are to be seen plants with beautiful dark green foliage and carrying 600 and 800 flowers each. The old oneidium flexuosum grows with a reckless abandon; large specimens carry 50 to 75 spikes each, and are an eyeopener to many. There is a fine maze of American arborvitae here, patterned after the one at Hampton Court Palace, England.

At the estate of Arthur T. Syman, Waltham, Mass., where Walter Angus is head gardener, a house of camellias, 85 feet long, is an interesting sight. The plants are in tubs and average from 8 to 12 feet in height. When seen early in March they carried thousands of flowers. There is a row of brick wall on this estate some 400 feet long, covered with trained peaches of all the best European varieties, one-half the length being enclosed in glass casing. These trees annually yield a big crop of handsome fruit. Some grand beds of rhododendron are on the north side of the mansion, while dotted about the grounds are grand old specimens of English elms, purple beech, white pines, etc. One of the white pines girths 18 feet.

The estate of Mrs. Samuel C. Lawrence, Medford, Mass., is always worthy of a visit, as many plants not often met with are well grown here by the skillful gardener, George F. Stewart. Dipladenias are grown to perfection here, so are clerodendrons, allamandas, rondeletias, ixoras and crotons. The glory pea of Australia-Clianthus Dampieri-was flowering beautifully. In the way of orchids, cattleyas which have been here for years, and in some cases not disturbed for half a dozen years, are in most luxuriant health. A row of C. Schroederiana hanging along the ridge of an old carnation house was the picture of perfection. The night temperature often falls to 45 degrees, little shading is given and the plants are fed freely as are other orchids. In the large store house are some grand specimen rhododendrons in tubs 10 to 12 feet high, also quantities of mammoth hydrangeas which annually carry hundreds of flower heads each. well-known Calceolaria Stewarti was raised here. Mr. Stewart now has three other colors of this type.

#### PITTSBURGH HORTICULTURAL CIRCLES.

The Garden Home Country Club, composed of residents of Ross Township, has the distinction of being the initiative or-Pennsylvania. An application for a charter was filed on the morning of March 30 in Common Pleas Court, the directors being G. F. Seif, Edward Grossman, Charles Kurt and A. G.

Although no definite steps have yet been taken, a number of the private gardeners of Pittsburgh and Sewickley Heights (numbering in all about one hundred) are agitating an organization of their own. While some are affiliated with the Florists' Club, many feel a distinct organization will be more satisfactory.

E. J. Derry, for eighteen years in the employ of Mrs. William Thaw, is the most enthusiastic of the older men for a gardeners' He supervised the building of the greenhouse, notable for its fine foliage plants, adjoining Mrs. Thaw's present home in Beechwood Boulevard in 1906, and a few years previous looked after the landscaping of her beautiful summer home "Elmhurst," at Cresson on the topmost range of the Allegheny Mountains. Nearby the town place of Mrs. Thaw is the old Mountains. Nearby the town place of Mrs. may as one of Thaw estate, "Lyndhurst," now leased to J. J. Fisher, with Neil Forsyth as head gardener. He has a range of five houses, hot Forsyth, who is a young Scotchman, received his early training at Andrew Carnegie's Skibo Castle.

In this same Point Breeze neighborhood is the Charles D. Armstrong place, which is in charge of Thomas Edward Tyler, who came from England four years ago. Mr. Armstrong is devoted to orchids, five of his seven houses being devoted to this flower. There are many calanthe in variety, and between two and three hundred hybrid cattleya, brassia, laelia, and some splendid specimens of dendrobium.

C. Philipps, who for several years had charge of the H. J. Heinz East End estate, and later of Mrs. Sarah B. Cochran's "St. James Place," at Dawson, has opened an attractive flower shop with a landscape department on the corner of Forbes and Dallas avenues, Squirrel Hill.

H. C. Frick has decided to gradually dispose of the flowers and foliage plants in his conservatories at "Clayton," his Pittsburgh home, and close the houses permanently. Until the Phipps conservatories in Schenley Park claimed the public attention, the Frick place was the shrine of the lovers of flowers and flowering plants, but the visitors have gradually dropped off. It is owing to this fact that the owner has decided to dispose of this feature of his splendid property. The estate as whole will continue under the regime of David Frazer, who has been in charge of it about eighteen years.

"Solitude," the Pittsburgh estate of the late George Westinghouse in Homewood, is now occupied by J. Gerry Curtis. He and his family are the first occupants of "Solitude" since the death of Mr. Westinghouse, the place having been closed at that time. Mr. Curtis came to Pittsburgh from Boston a few years ago as assistant chairman of the Shade Tree Commission, which was abolished last year by council. Mr. Curtis has offices in the Farmers' Bank Building, and in addition to his private work is borough forester of Sewickley, Wilkingburg and Dormont, he was recently appointed chairman of a sub-committee of the Civic Committee of Allegheny County.

Superintendent William Allen, of the Homewood Cemetery, has been appointed chairman of the Vacant Lot Committee of the Civic Committee, which is contemplating a campaign in the interest of these "eyesores" of the city during the spring and summer. To this end a luncheon will be given at the Fort Pitt Hotel next Wednesday (April 14) to interest the public. Mr. Allen is beginning to convalesce from an accident of six weeks ago, when he slipped on a step, fracturing his right ankle.

#### OBITUARIES.

Thomas Emerson, for the past 45 years head gardener to the W. B. Dinsmore family, Staatsburg, N. Y., died at his home on the 3rd inst., in his 76th year.

He served under three generations of the Dinsmore family, a

record which we believe is unbroken in this country.

Thomas Emerson was born in Thornbill, Scotland, December 25, 1839. Worked in the gardens at Blair Drummond, Eglington Castle and Rozelle, then came to this country and shortly afterwards entered the employ of W. B. Dinsmore as gardener, which position he held until his death. He was well known to the gardening fraternity, and many gardeners now holding prominent positions have passed under his tutorage.

He is survived by his widow, two daughters and two step-daughters. He was an uncle of W. E. Marshall of New York.

The friends of John B. Thomson will regret to learn of the fatal accident which occurred to him on February 19 last, the news of which came to us too late to publish in our last issue. He was kicked by a horse which resulted in his death. He leaves a widow and three small children without kin in this country, his widow's family all being located in Scotland.

The rather sudden death of Alexander Proctor, superintendent on the estate of Mrs. H. J. Burrill, Hicksville, N. Y., was a shock to the garden fraternity in which he was well and popularly known. His demise occurred on March 20. He is survived by his brother, Thomas Proctor, of Lenox, Mass.

Editor Gardeners' Chronicle:

The article entitled "Traditions of the Fathers," appearing in the last month's issue of the Gardeners' CHRONICLE deserves more thoughtful consideration than was given it by the author. I do not think that there are many of our gardeners who were brought up in the old school but are aware of the fact that a good many of the hard and soft wooded plants can be propagated from cuttings cut between joints as when cut at the base of a joint, or in other words with a heel. If this article was backed up with an experiment showing the advantage of this method in a larger percentage of cuttings, striking and stronger plants resulting therefrom, over cuttings made with a heel, it would have some value as a horticultural article.

I have read Peter Henderson's books and cannot say that he made many radical changes in the system of propagation, but he did open up the eyes of the people to the fact that there was no secret about it. It would be very interesting to have an expression of opinion through your columns from some of the progressive gardeners of today on this subject.

WM. GRAY. today on this subject.

# AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. X. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### ASSOCIATION NOTES.

President Amrhyn announces the following committees in connection with the 1915 convention to be held in San Francisco in August:

Committee on Transportation.

Herman W. Merkel (Chairman), Forester and Constructor, Zoological Park, New York City.

James B. Shea, Deputy Commissioner of Parks, Boston, Mass. John Henderson, Superintendent of Mt. Royal Park, Montreal Canada.

William S. Manning, Superintendent of Parks, Baltimore, Md. J. H. Prost, Superintendent and Forester, Special Park Commission, Chicago, Ill.

Committee on Convention.

John McLaren (Chairman), Superintendent of Parks, Golden Gate Park, San Francisco, Cal.

Roland W. Cotterill, Secretary of Park Commission, Seattle, Wash.

Theodore Wirth, Superintendent of Parks, Minneapolis, Minn. John W. Duncan, Superintendent of Parks, Spokane, Wash. H. A. Alspach, Superintendent of Parks, Sacramento, Cal.

Plans for the 1915 annual convention at San Francisco, August 18, are now well under way. The itinerary of the special train will be found elsewhere in this issue and it is to be hoped that this feature will be successful and that our members and their friends and relatives will be of sufficient number to carry it through. The special train will be a great advertisement for the association and will afford conveniences in travel which would otherwise be impossible.

Bulletin No. 12 "Concessions and Privileges in Public Parks" is just off the press and will be in the hands of the members shortly. It contains comments from twenty-five cities of over 100,000 population of their experience with these features and should be of assistance to those who are wrestling with this problem. The officers had feared that the publication of a bulletin this year would have to be omitted for financial reasons, as we are determined that there shall be no old debts turned over to the new administration; however, there will be a bulletin this year as usual.

Owing to delay on the part of correspondents there was no article last month for the series "Park Systems of Pacific Coast Cities." At this time the data is on hand from Tacoma, Los Angeles and Portland and will be published in order. These articles are intended to set forth what those who attend the San Francisco convention may see if they tour the coast by the special train.

Following the convention a series of similar articles from Middle West and Eastern cities will be published.

The secretary has on file applications from twelve capable men seeking positions in connection with park work. The financial depression of the last year or two, combined with the retrenchment spirit which has prevailed all over the country, has resulted in many competent men being displaced, with but few new openings, hence the association employment bureau has not been of much service. Should any member know of a possible opening, the secretary will be glad to supply a list of eligibles.

Someone has suggested that the president and secretary were somewhat egotistical in having full page portraits of themselves in the 1914 proceedings so we hasten to explain that these are days of economy. The editor of the Chronicle had these cuts in stock and their use saved the association the expense of having cuts made, also all other cuts used with the exception of the vice-presidents, did not cost the association a cent, being stock cuts of this magazine, which under ordinary circumstances would have been a considerable item of expense to the association.

Members who can and will prepare papers on special subjects to be read at the August convention are requested to notify the president or secretary as soon as possible. It is the intention to have more papers and discussions this year than has been the custom for a year or two and members are urged to volunteer. Select your own subject, but make it something of general interest, not a local descriptive review. Your experience or knowledge of certain phases of Park work may be invaluable to others and the purpose of our convention is the dissemination of such knowledge.

# PARK DEPARTMENT PERSONALS

John Henderson, superintendent of Mt. Royal Park, at Montreal, and one of our vice-presidents, had the misfortune to break his leg in three places on January 21 and was confined to his home for over two months as a result.

Charles A. Whittett, formerly superintendent at Lowell, Mass., has turned up at Los Angeles, Cal., and will endeavor to secure a berth in park work at one of the Pacific Coast cities.

Adam Kohankie, assistant superintendent at Denver, writes that the prospects are good for a full half-mile levy for the Denver Mountain park system, separate and distinct from the regular city levy. Those who attended the Denver convention of 1913 will never forget the tour of the wonderful mountain parks, which are an asset which no other city in the country posses. Denver will make no mistake in providing liberal appropriations for this unique feature.

Wm. R. Adams, superintendent at Omaba, Neb., writes that he is still on the job, although the commission form of government has rather upset the old order of things. Mr. Adams has rendered many years of faithful and efficient service to the city of Omaha and it is regrettable that men of his type should be handicapped by having to adjust their work to meet the ideas of politicians who have little or no experience along park lines, as is the case in a number of American cities which are working under new forms of government.

J. Howard Stine, for the past seven years director of playgrounds at Seattle, has resigned to accept a similar position at El Paso, Texas. Mr. Stine has been in charge of the Seattle playground system from its infancy to the present time when it consists of twenty-five playgrounds and four social centers, hence has had a wide range of experience which will be helpful in building up a system from the very beginning, which will be the case of El Paso. Mr. Stine's work at Seattle has been taken over by Assistant Superintendent Frank L. Fuller.

Calvin C. Laney, superintendent, and John Dunbar, assistant superintendent of Rochester, N. Y., are given very high praise for their work in a historical review of park work in Rochester published recently. The Rochester Park Board has just rounded out a quarter of a century of service, but has been legislated out of existence, being superseded by a Commissioner of Parks, under a new form of government. The change, however, will not affect Messrs. Laney and Dunbar who have been with the department since 1890 and have had much to do with making the Rochester Park system one of the best in the country.

L. H. Weir, field secretary of the Playground Association of America, known to many of our members by reason of his periodical visits to various cities, is sojourning at Albuquerque, N. M., where Mrs. Weir is taking treatment for tubercular trouble at a sanitarium in that city.

Wm. A. Gorman, formerly superintendent at Brooklyn, but temporarily out of public service, has been improving the time by inventing a lawn scarifier and tamper, on which he has received patents and has recently put the implement on the market.

It goes without saying that the device has merit, because Mr. Gorman's years of experience in park work has given him an opportunity to learn the practical essentials of an implement of this kind.

The following news item from Long Beach California is an illustration of frenzied financeering in connection with park work:

"Park Superintendent Arthur Falkenhayn is in imminent dauger of losing his job as a result of confessions made to members of the City Council that men employed as laborers in the parks were laid off for a portion of the month, but shown on the pay roll for full time, the extra money being expended for tools and equipment. Although the councilmen are satisfied that Mr. Falkenhayn did not profit personally by the peculiar financeering, they are in favor of asking for his resignation."

# ITINERARY OF CALIFORNIA TRIP OF THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

En route to the respective conventions, to be held in San Francisco during the week of August 16, 1915, and return.

This is a tentative itinerary of our trip to San Francisco, and may be subject to some slight change.

We cordially extend an invitation to the members of Society of American Florists, National Association of Gardeners and local horticultural and florists clubs and societies to join our party. The railroad fare, including lower Pullman berth, will be approximately \$168. The advantages of travelling in a party are many, an important one being the comfort of your own car en-route. doing away with handling of baggage at every stop over point.

Make your reservations now with M. C. Ebel, editor of the Gardeners' Chronicle, or with the undersigned. HERMAN MERKEL,

Chairman Committee on Transportation.

Zoolo C. Park, Bronn, New York City.

Saturday August 7 Leave New York by morning train.

Sunday August 8 Arrive in Chicago 9 a, in, Sunday, August 8 Leave Chicago at 6:30 p. in,

Monday, August 9 Arrive Minneapolis 8 a. m. Full day and evening it Minneapolis. Leave by Great Northern Railroad at 10:45 p. m.

Wednesday, August II. Arrive at Glacier National Park at 8 a.m. Fill day auto tour of Glacier Park. Leave at 8 p. m.

Thursday, August 12 Arrive at Spokane 8 a. m. midnight.

Friday, August 13 Arrive Seattle, 12 noon, Saturday August 14 Leave Seattle 11 a. m. via Puget Sound steamer. Due at Tacoma 12:45 p. m. Leave Tacoma at midnight.

Sunday, August 15 Arrive Portland 7 a. m. Leave via the Southern Pacific at 3:50 p. m.

Monday August 16 Airiye San Francisco 6:50 p. m.

Monday, August 16, to Sunday, August 22 In San Francisco. Sunday, August 22-Leave San Francisco via the Southern Pacific at 7:45 a. m. Due at Del Monte 11:44 a. m. Leave in evening for Los Angeles.

Monday, August 23 - Arrive in Los Angeles 9:45 a.m. Tuesday, August 24 - At Los Angeles, While here Pasadena

may be conveniently taken as a side trip by electric train of the Pacific Electric Railway. Service every half hour, Ride consumes 30 minutes.

Wednesday, August 25 -Leave Los Angeles via the Santa Fe at 9:10 a. m. Due San Diego 1:10 p. m.

Thursday, August 26 Leave San Diego 12:50 noon via Fullerton. Due at Riverside 6 p. m. Visiting the famous "Mission Inn" and seem, the famous Magnolia avenue. Friday, August 27 Leave Riverside via the Salt Lake Route at

2:40 p. m. for Salt Lake City.

Saturday, August 28 Arrive at Salt Lake City 2 p. m. mobile sight-seeing trip may be taken through the city, returning to the Denver & Rio Grande Station and leaving at 4:50 p. m. in through cars for Colorado Springs. After leaving Salt Lake City this train passes through the beautiful Utah Valley and the most highly developed orchards in the world.

Saturday, August 28 At 6:30 a. m. (next morning) the train will pass Glenwood Springs, the queen of health resorts; thence through the Canyons of Eagle and Grand Rivers, Tennessee Pass, the Continental Pass, the Black Canyon of the Gunnison, Marshall Pass and the Royal Gorge, the mightiest chasm in the world

traversed by steel rails.

Sunday, August 29 Arrive at Colorado Springs 5:40 p. m. Monday, August 30 At Colorado Springs. While here an auto-

mobile trip may be taken to Maniton and the Garden of the Gods, or by train to Pike's Peak.

Tuesday, August 31 Leave Colorado Springs 9:25 a.m. Due at Denver 12.01 noon. Leave Denver via the Burlington Route at 9 p. m. in through cars for St. Louis.

Thursday, September 2 Arrive in St. Louis 7:19 a.m. Leave St. Louis at 11:50 p. m. for New York. Saturday, September 1 Due at New York 6:51 a. m.

#### BEST SOIL FOR VEGETABLES.

While the ideal truck soil is a mellow, well-drained loam, vegetables can be grown successfully on almost any type of soil, if the land is well prepared and supplied with a sufficient amount of available plant food. There is much advantage in having the land level or nearly so, as cultivation is more easily carried on and there is less loss of fertility through leaching and surface washing during heavy rains. The light clay-loam ridges, level sand flats, and black peaty bottoms which are found in the coast plains area of the South Atlantic states offer a variety of soil for the successful production of most vegetable crops. There are, however, areas of fine trucking land in the Piedmont and mountain sections where vegetables requiring cool, moist soil conditions can be grown more readily than they can further east and south.

It is not so much a question of soil types as it is careful preparation and thorough cultivation, that makes the growing of vegetable crops profitable. It is true that each vegetable requires cultural treatment particularly suited to its individuality, but there are some requirements that apply to the growing of almost all truck crops. An ample supply of moisture and a liberal supply of readily available plant food must be present in order to promote the rapid growth necessary to make cultivation of these crops profitable. Deep plowing, the application of plenty of humus, either in the form of stable manure or some soiling crop, and thorough tillage, will improve the physical condition and increase the amount of fertility of almost all soils. This is particularly true of clay and sandy lands. Black peaty bottom land usually contains plenty of vegetable matter. In addition to deep plowing and careful tillage, soils of this character can best be improved by draining and the application of lime. As a rule, the more care and attention given to the preparation of land for truck crops, the more easily can cultivation be carried

#### WORK FOR THE MONTH OF MAY.

(Continued from page 185.)

when they are large enough to handle they should be potted off and placed in coldframes. Pot on as required and keep them in frames until late fall. There are a number of special forcing varieties on the market, but the best we have found among these are Princess Alice and Beauty of Nice. The double ones can readily be distinguished by the stubby shape of the buds, whilst those that are single are of slender form. One authority claims that by germinating stock seed upon white blotting paper in a warm place he can select the doubles from the singles. The seeds which first put forth roots, it is claimed, produce double flowering plants.

#### CHRYSANTHEMUM.

The chief aim should be to keep these subjects as sturdy and vigorous as possible. They demand a lot of attention in the way of watering at this time. Dry winds, hot sun, small pots, and strong growth all tending to make the chrysanthemum demand a let of water. Evaporation is also rapid and a good syringing on bright days will be of great benefit to the plants.

During May is a good time to make sowings of annuals such as sweet alyssum, ageratum, lupines, delphiniums, candytuft, Shirley poppies, gypsophila, mignonette, etc. Have the soil in a good mellow condition before sowing, and when the seedlings are large enough to handle thin them out to avoid crowding.

# Tacoma and Its Parks

By George A. Hill,\* Washington.

Sir Henry Irving, a man of judgment and one who had travelled the world over, said: "Tacoma has the most beautiful situation and environment I have ever seen."

Tacoma, a beautiful city of more than 100,000 inhabitants, is on the shores of Puget Sound. It is the gateway to Mount Tacoma, the wonderful mountain of changing moods, nearly 15,000 feet in altitude, about whose feet lies Rainier National Park.

This grandest of America's mountains may easily be climbed, and its lower reaches are accessible to the poorest traveler. Starting from Tacoma, the tourist can go to a living glacier in an automobile, a trip of 70 miles. This ride is without parallel in the world. No matter where the tourist may go, nowhere else can be enter an automobile and find himself at the line of eternal snow after a ride of only four hours, over an almost perfect

that one may enjoy all this without great effort or hardship and with the greatest economy of time and expense.

Long years before Tacoma was known by any other title, it was far famed as "The City of Homes." The people of Tacoma are a home-loving and home-owning people. The life of the city is in its homes; there throbs the real heart of the city. Tacoma is proud of all those institutions which are connected with the home—schools, churches and libraries.

Puget Sound is especially favored in having long, cool summers and mild winters, which make it possible to grow a great variety of trees, shrubs and flowers, including some that are semi-tropical in their habits.

Rose culture is very popular, and beautiful hedges and heds of roses are seen everywhere, blooming the greater part of the year. English holly and many plants not grown in the East are common in Tacoma gardens.



ON THE SLOPES OF MCKINIEY PARK

road, many miles of which are paved with concrete. Mile after mile the road passes through the solitude of giant forests, the trees 6, 8 and 10 feet in diameter, their lofty heads towering 150 feet and more toward the sky. One especially thrilling part of the ride is the long ascent up the Nisqually canyon, where the road winds about a precipitous wall, while hundreds of feet below the Nisqually river roars through its rocky channel. At the entrance to Rainier National Park is a huge gateway of mammoth logs and a rustic lodge where visitors are registered.

Within a radius of 70 miles of Tacoma, nature presents a great variety of delightful and wonderful aspects. It would seem that the forces of nature had spent themselves in creating this land of magnificent mountains, glaciers, cataracts and canyons, together with the inexhaustible delights of Puget Sound, and the beauty of it all is

Superintendent of Parks, Tacoma, Wash,

Tacoma's great Stadium, built by popular subscription at a cost of \$135,000, is a unique amphitheatre with 29 miles of concrete seats, in tiers, with a comfortable seating capacity of 35,000. Theodore Roosevelt, when speaking in the Stadium in April, 1911, said: "I know of nothing like it—nothing on this side of the water and nothing abroad. In building it, Tacoma has done something that must have a marked effect upon all the other cities in the Union."

Within the City of Tacoma are 1,030 acres of public "breathing places," separated into twenty parks, ranging in size from a small triangle to one of 638 acres in area.

With the aim of keeping the parks out of the hands of politicians, the citizens of Tacoma, by vote, created the Metropolitan Park District, controlled by a board of five commissioners, one to be elected each year for a term of five years. The City Council, by ordinance, turned over all the park property to the sole control of this district,

for maintenance and improvement. The board has power to levy a tax of 1½ mills on all the property within the city limits for this purpose. This levy has brought to the district about \$100,000 per amum, and from which must come the maintenance and all improvements made in the parks.

It has been the ambition of the park commissioners to keep the district free from debt. Therefore only such improvements as could be paid for have been undertaken. This has not meant undue retrenchment, but year by year a steady advancement has been made, until Tacoma now can show parks equal, if not superior, to those of any city of its size in the country, and that without a bonded indebted-



BLACH ALPOINT DELLANCE PARK

All the small squares and triangles are plots of ground with green grass, trees, shrubs and flowers.

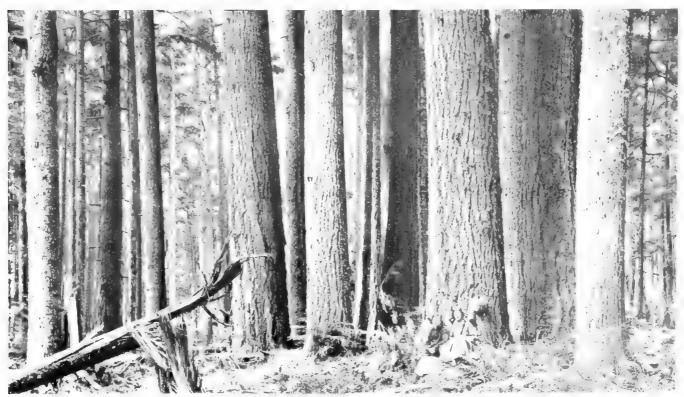
Situated between the residence and business section of the city is Wright Park, consisting of 27 acres, one of the most artistic artificial parks in any country. It is notable for the extensive variety of trees and shrubs it contains, there being 350 varieties of trees and shrubs, or about 3,000 in all, giving pleasure and profit to the lover and student of botany and dendrology. Velvety green-lawn areas interspersed by walks and drives make a beautiful landscape effect, and bring to the people who frequent it great pleasure. The conservatory in Wright Park is filled with flowers, palms and many rare plants.

McKinley, Lincoln and South, in the southern part of the city, are local parks filled with native trees and shrubs, such as fir, oak, dogwood, maple, hemlock and varieties of spirea.

No city in the country has a park so unique in situation, so varied in scenery and rich in beauty and possibilities, as Point Defiance Park. This park occupies the point of land jutting into Puget Sound north of Tacoma. It is 638 acres in extent, has about 312

miles of coast line on Puget Sound, and has an altitude of from 100 to 300 feet above tide level. The natural scenery within, and the view from the park are almost unexcelled. Within the park are many beautiful scenes, magnificent trees, fine masses of native shrubbery, flowers and ferns, forming at places an almost impenetrable wilderness.

A driveway 5 miles in length winds in and out around



GIAZI "DOUGLAS TIRS" AS SITY IN POINT DELIANCE PARI.

the edge of the park, giving beautiful vistas of the Sound and the islands beyond, but the traveler instinctively turns to the many scenes of stately trees and the ever-changing panorama around him as he travels this driveway, or he is filled with awe as he stands at the extreme point looking down 150 feet to the surging waters below, where the tides clash in the deep Narrows.

Among the many specimens of native trees in the park is the largest yew tree in the state.

At the entrance to the park about 100 acres have been improved by lawns, buildings, etc., including a very well-equipped Zoo that is worth seeing. The buffalo, elk and deer are in large pens in their natural surroundings. A small animal house cages lions, cougars, wild cats, etc., and a well-built modern pheasantry contains a fine display of rare pheasants and other birds and animals.

In the rose garden there are 66 varieties of roses in beds, containing from 12 to 24 bushes each. Each variety is plainly labeled with the name of the rose, the introducer and the date of introduction. Four large arbors covered with climbing roses of the best varieties attract universal attention.

The remainder of the park will be left in its natural beauty, but interspersed by drives and walks and picnic grounds.

A comprehensive plan of this park was made by Hare & Hare, of Kansas City, Mo., in 1911, and all improvements since have been in the direction of carrying out these plans. The plans give in detail the planting scheme, and the water, light and sewer systems, so that the superintendent can carry them out at any time when "Livin' in Tacoma, where the dreams come true, Mountain always callin' to the heart o' you; People so content-like, never want to move, Lots o' time for friendship, lot's o' time for love; Roses in December, cool and nice in June, Just the place for strollin' neath the silvery moon; Real estate a-boomin', merchants feelin' fine, No need here for kickin', fish on every line—Livin' in Tacoma, where the dreams come true, No place like Tacoma for the soul o' you."

#### MR. TOTTY GOING TO THE EXPOSITION.

Mr. and Mrs. Charles H. Hotty will leave Madison on Monday, April 26, for San Francisco. Mr. Totty has



SUPERINTENDENTS HOME AT POINT DEFIANCE PARK.

been appointed on the International Board of Jurors, at the Panama-Pacific Exposition and expects to be gone about six weeks. He has been chairman of the advisory board in the horticultural section of the exposition for the past year, and the appointment as a juror comes as a reward for his services on the advisory board.

#### HARRY A. BUNYARD CO., INC.

Harry A. Bunyard, well known in the seed trade, and commercial and private growers throughout the country, has recently embarked in business for himself under the name of Harry A. Bunyard Co., Inc. Actively associated with Mr. Bunyard is Frank A. Duggan, for many years connected with the seed trade in New York City.

The company is established in an up-to-date store at 40 West 28th street, in the wholesale cut flower district. An attractive catalogue has been issued

chairman tural section and the approximation of the properties of the provided and the approximation of the approximation

CFDAR SILMP IN WRIGHT PARK USED AS BAND STAND,

funds are available. It is our aim to complete each unit as we advance, and to do the work in a permanent way.

Spanaway Park is 8 miles south from the center of the city on a beautiful lake of the same name. It is 300 acres in extent, covered with many fine fir, maple and oak trees. No improvements have been made in this park. The ground is quite level and there is much natural beauty. It is a portion of the great 30 or 40-mile prairie adjoining Tacoma, across which the wonderful mountain road runs, and which is the paradise of the automobilist.

Ornamental Fowl for Gardens and Parks is the title of a series of articles which will begin in the May number on the breeding and habits of these fowls, the pleasure of cultivation, and aviaries suitable for the moderate garden or extensive estate.

# AMERICAN ACADEMY OF ARBORISTS.

A new organization was recently launched to place and maintain practical arboriculture and landscape forestry in this country on a high professional basis. It has long been recognized that the practice of forestry as relating to that of the general forester and that of the landscape forester or arboriculturist is quite distinct, and that the demand is constantly increasing for efficient men to take up the forestry work of parks and private estates.

To better provide this demand, the American Academy of Arborists has been organized with the following charter members: Herman W. Merkel, chief forester, New York Zoological Park, Bronx, New York City; William W. Colton, forest commissioner, West Newton, Mass.; Prof. J. W. Toumey, director, Yale University Forest School; J. J. Levison, arboriculturist, Park Department, Brooklyn, N. Y.; Harold J. Neal, city forester, Worcester, Mass.; R. B. Maxwell, city forester, Baltimore, Md.; George A. Cromie, city forester, New Haven, Conn.; James H. Walker, city forester, Newark, N. J.; H. B. Filer, city forester, Buffalo, N. Y.; A. T. Hastings, Jr., city forester, Jersey City, N. J.

The officers elected for the first year are: President, Herman W. Merkel; secretary, J. J. Levison; vice-presidents, William W. Colton, R. B. Maxwell; board of directors, James H. Walker, George A. Cromie, Harold J.

Neal.

The following constitution was adopted at the first meeting of the organization, held at the Zoological Park, Bronx, New York City, January 2, 1915:

#### CONSTITUTION.

Article 1. Name and Object.

Section 1. The name of this Association shall be the Ameri-

can Academy of Arborists.

Section 2. The object of the Academy shall be the advancement of arboriculture and landscape forestry, and the maintenance of the highest professional standard among its members.

#### Article 2. Members.

Section 1. The members of this Association shall be designated as

(a) Fellows.

(b) Honorary Members

Section 2. A Fellow shall be at the time of his admission to membership not less than twenty-five (25) years of age, and shall have been actively engaged in the practice of his profession for 10 years. Graduation from a school specializing in Arboriculture or the arts and sciences closely connected with Arboriculture shall be accepted by the Academy and credited with a proportionate number of years of active practice.

Section 3. An Honorary Member shall be a person of broadly acknowledged eminence in Arboriculture or landscape forestry, or one whose services to the objects of the Academy shall entitle

him to this position.

Section 4. Honorary Members shall not be entitled to a vote in the Academy.

# ARTICLE 3. Meetings.

Section 1. Regular meetings shall be annual meetings, and shall be held on the second Saturday of January.

Section 2. The place of meetings shall be decided by the Board of Directors

Section 3. Special meetings will be held upon the order of the Board of Directors or upon the written request of one-third of the Fellows

At any meeting a quorum shall consist of not less Section 4. than seven (7) Fellows.

#### ARTICLE 4. Officers.

Section 1. The officers of this Academy shall be a President. two Vice-Presidents and a Secretary-Treasurer, and a Board of Directors

Section 2. The terms of all offices shall be for one (1) year. Section 3. The duties of the President, Vice-Presidents, Secretary-Treasurer shall be those usually incumbent upon such

Section 4. The Board of Directors shall consist of the President (Chairman ex-officio), Vice-Presidents, Secretary-Treasurer, and three (3) Fellows of the Academy chosen by the President

The Board shall manage and conduct all business of the Academy. Section 5. The Board of Directors shall act as a Committee on Publication, compiling and editing once each year a report which shall be the official organ of the  $\Lambda$ eademy. This report

shall contain a statement of the status of the Academy, proceedings of each annual meeting, and such technical or professional articles as may be of value to the Fellows. The Secretary Treasurer of the Academy shall act as the Secretary to the Board of Directors.

#### Alther 5. Nominations and Elections

Section 1. At each annual meeting the Academy shall elect President, two (2) Vice-Presidents, a Secretary-Treasurer. Officers shall assume their duties upon receiving notice of their election, and shall hold office until their successors have been duly elected. The President shall appoint three (3) Fellows to serve with the officers as the Board of Directors.

Section 2. The officers and members of the Academy shall be elected by ballot. The officers shall be elected annually and any officer shall be eligible for re-election. Candidates for offices shall be elected upon receiving a plurality of all votes cast. Candidates for membership shall be declared elected provided not

more than two (2) negative votes are cast.

Section 3. Application for Fellowship must be made in writing and signed by a Fellow of the Academy to whom the applicant is personally known. The Secretary shall present the applications to the President, who in turn will refer them to his Investigating Committee, and only those reported favorably by this Committee shall be placed before the Academy for vote.

Section 4. A nominee for Honorary membership shall be proposed by the Board of Directors who shall state his qualifications

in writing. He shall be elected by the Academy.

#### ARTICLE G. Dues.

Section 1. An applicant for Fellowship shall pay an initiation fee of \$5.00 with application. This shall be returned it applicant

is not elected.

Section 2. The annual dues of Fellows shall be \$2.00.

Section 3. Honorary Members shall not be subject to initiation fees or annual dues

Section 4. Any member whose dues remain unpaid for six (6) months shall be declared in arrears. The Board of Directors may then remove him if he fails to pay his delinquent dues within thirty (30) days after notification by the Treasurer.

Section 5. Resignation must be submitted in writing, and may be accepted by the Board of Directors, provided all indebtedness

to the Academy has been discharged.

Section 6. The Academy shall issue to Fellows on entrance to membership a certificate of membership and an emblem which shall be the property of the Academy; the Fellow making a deposit on receipt of same. In case of expulsion or resignation this shall be returned to the Academy and deposit refunded.

# VALUE OF AMERICAN HORTICULTURAL LITERATURE.

In your last issue, Mr. G. H. Engleheart complains of the number of Notes from American literature appearing in the Journal of the Royal Horticultural Society, affects certain suggestions concerning them, and says they are "very dull padding," "quite valueless to the It is very unlikely that a discussion on home reader." alleged demerits in these Notes can be of interest to your readers, but in the interest of accuracy I should be glad if you would insert this letter. Mr. Engleheart has been at the trouble of counting the abstracts (wrongly, indeed all his figures are inaccurate), and has singled out seven of them (quoting the title of only one of the seven correctly) as failing to provide him with either amusement or instruction. It would be superfluous to most British readers to state that in no other country has scientific investigation been applied to the problems of plant cultivation to such an extent as in the United States of America; none has so highly organized a system of experiment stations, so many men, or such large grants from public funds, and in none is the output of literature so enormous. Nor need I discuss the value of a knowledge of the results of experimental work to those engaged in cultivation. That they gave him no amusement I can well believe; they were not intended to be amusing. -Pred J. (Inttenden in Gardeners' (Intent le Lin, lish).

# FIRST PRELIMINARY PLANT SCHEDULE

of the

# FOURTH NATIONAL FLOWER SHOW

# Philadelphia, March 25 to April 2, 1916, inclusive

Under the Auspices of the Society of American Florists and Ornamental Horticulturists

onder the Muspices of the Obelety of	/I /killer	ican i lorists and Ornamental Horticulturists	
PLANTS IN FLOWER.		Phœnix Rupicola, specimen	15.00
		Phoenix, any other variety	15.00
Private Growers.		Palm, specimen, other than above	15.00
First	Second	Pay Trees, 2 plants	15.00
Prize.	Prize.	Six foliage plants, exclusive of Palms, not less	
Acacias, 3 plants, one or more varieties\$25.00	\$15.00 ]0.00	than 8-in, pots, pans or tubs	30.00
Acacia, specimen, any variety	10.00	Specimen foliage plant, other than above 10.00	6.00
Amaryllis, 25 plants, in 25 varieties	15.00	DEDNIC AND OUT ACTUELL AC	
Amaryllis, 12 plants, 12 varieties	10.00	FERNS AND SELAGINELLAS.	
Anthuriums, 6 plants, not less than three varieties. 15.00	10.00	Adiantum Farleyense, specimen	10.00
Anthurium, specimen 5.00	3.00	Adiantum cuneatum, specimen	6.00
Azalea Indica, 6 plants in variety, each plant not		Adiantum, any variety, specimen	6.00
less than $2^{1}$ <sub>2</sub> feet in diameter	30,00	Davallia, specimen, any variety	10.00 $10.00$
Azalea Indica, specimen, white, not less than 4 ft.		Stag's Horn Fern, specimen	15.00
in diameter	15,00	Ferns, 6-plants, 6 varieties, not less than 8 in. pots. 25.00	15.00
Azalea Indica, specimen, pink or rose, not less than		Cibotium Schiedei, specimen, not less than 10 ft.	1.07,(71)
4 ft. in diameter	15.00	spread 25,00	15.00
Azalea Indica, specimen, any other color, not less	1 =	Sclaginellas, three plants	3.00
than 4 ft. in diameter	15,00	Tree Fern, specimen	15.00
Azaleas, any other type, 10 plants	15.00 $10.00$	Fern, any other variety, not otherwise specified 15.00	10.00
Begonias, 6 plants	10.00		
Bougainvillea, specimen	6,00	ORCHIDS	
Cineraria, hybrids, 6 plants	15.00	Collection covering 50 sq. ft. Arranged for effect,	
Cineraria stellata, 6 plants	15,00	Palms and Ferns permitted100.00	75.00
Cmeraria, specimen, any variety 10.00	6,00	Six plants, in variety	15.00
Cyclamen, 12 plants, not less than 8-in. pots 50.00	30,00	Three plants, in variety	-10.00
Cyclamen, 6 plants, not less than 8-in, pots 25.00	15,00	Brasso Cattleya, or Brasso-Ladia, Uplant 15.00	10.00
Chorizema, specimen	6,00	Cattleya Mossie, specimen . 15.00	10.00
Ericas, specimen, any variety 10.00	6,00	Cattleya Schroderæ, specimen	10.00
Gardenias, 6 plants	10.00	Cattleya, specimen, any other variety 15.00	10.00
Genista, specimen	6.00	Cypripediums, 12 plants, 6 or more varieties 15.00	10.00
Hydrangeas, 6 plants, 6 varieties, not less than	7 = 00	Cypropedium, specimen 10,00	6.00
8-in. pots	15.00	Dendrobiums, 6 plants, not less than 3 varieties 15.00 Dendrobium nobile, specimen	6,00
Hydrangeas, 3 plants, 3 varieties, not less than	]0,00	Dendrobium Wardianum, specimen	6,00
8-in, pots	6,00	Dendrobium, specimen, any other variety 10.00	6.00
Hydraugea, specimen 10,000 Imantophyllum, 3 plants 10,00	6.00	Cattleya, Lælia, or Lælio-Cattleya Hybrid, speci-	0
Lilac, 10 plants, in variety	15,00	men	10.00
Marguerites, 6 plants	15,00	Lælia, specimen, any variety 10.00	6,00
Marguerite, specimen 5.00	3,00	Odontoglossum, specimen, any variety 10.00	6.00
Primulas, 12 plants, not less than 3 varieties 10.00	6,00	Oncidium, specimen, any variety 10.00	(5,00
Primulas, 6 plants, not less than 2 varieties 5.00	3,00	Phalænopsis, specimen, any variety 10.00	(5,00)
Rhododendrons, 3 plants, 3 varieties, not less than		Vanda, specimen, any variety	6,00
4 ft. in diameter	15.00	Vanda, specimen, other than above 10.00	8,00
Rhododendron, specimen, any color, not less than		IN FLOWER—BULBS	
4 ft. in diameter	10,00		
Schizanthus, 6 plants	15.00	Bulbs in bloom in pots or pans, arranged for effect	1 - 00
	S,00 3,00	with foliage plants, to occupy a table of 50 sq. ft. 25.00	15,00
Schizanthus, specimen	-5,00	Hyacinths, 3 10-ins, pans, white	6,00
varieties	6,00	Hyacinths, 3 10-in. pans, pink or red	6.00
Spiræa, or Astilbe, 5 plants. 5,00	3.00	Hyacinths, 3 10-in. pans, fight blue	6,00
Flowering plant, any variety, other than above 10.00	6.00	Lilies, 10 pots	6,09
Wistaria, specimen	6.00	Lily of the Valley, 3 10-in. pans	6,00
Group of flowering plants and bulbs, covering 200		Narcissus, short or medium Trumpet, 6 10-in pans,	
sq. ft., arranged for effect (Orchids excluded)150.00	100,09	6 varieties . 10,09	6,00
		Narcissus, Glory of Leiden, 3 10-in, pans 5.00	3.00
PALMS AND FOLIAGE PLANTS.		Narcissus, Bicolor or Victoria, 3 10-in, pans 5.00	3,00
Areca lutescens, specimen	15.00	Narcissus, Empress, 3 10-in, pans 5.00	3,00
Begonia, Rex, 6 plants	10.00	Narcissus, Emperor, 3 10-in, pans	3.00
Begonia, Rex. 1 plant	3,00	Narcissus, Golden Spur, 3 10-in. pans	3.00
Cocos Australis or its variety, specimen 25.00	15.00	Narcissus, Double Von Sion, 3 10-in, pans 5.00	3.00
Cocus plumosus, specimen	10,00	Tulips, Early Single, 12 10-in, pans, distinct va-	10.00
Cycad, specimen, any variety	15,00	rieties	10.00
Crotons, 10 plants, 5 varieties.         25.00           Crotons, 5 plants, 5 varieties.         12.00	$15.00 \\ 8.00$	rieties	6.00
- viotons, a piants, a varieties	10.00	Tulips, Darwin, 12 10-in. pans. 12 varieties 15.00	10.00
Croton specimen 15.00			
Croton, specimen		Tulips, Cottage or Late, other than Darwin, 12	
Croton, specimen	10,00	Tulips, Cottage or Late, other than Darwin, 12 10-in, pans, 12 varieties	10.00
Croton, specimen		10-in. pans, 12 varieties	10.00
Croton, specimen	00.01 $5.00$		10.00
Croton, specimen 15.00 Dracænas, 5 plants, not less than 3 varieties 15.00 Dracænas, 3 plants, not less than 8 in, pots 8.00 Dracæna, specimen, any variety 10.00 Kentia Forsteriana, specimen 25.00 Kentia Belmoreana, specimen 25.00	10,00 5,00 6,00	10-in. pans, 12 varieties	10.00
Croton, specimen15.00Dracænas, 5 plants, not less than 3 varieties15.00Dracænas, 3 plants, not less than 8 in, pots8.00Dracæna, specimen, any variety10.00Kentia Forsteriana, specimen25.00Kentia Belmoreana, specimen25.00Nepenthes, 3 plants in variety15.00	10,00 $5,00$ $6,00$ $15,00$ $15,00$ $10,00$	ROSES IN POTS AND TUBS  Best display of Rose plants, any or all classes, arranged for effect. To cover 100 sq. ft. of space. 100.00	50.00
Croton, specimen 15.00 Dracænas, 5 plants, not less than 3 varieties 15.00 Dracænas, 3 plants, not less than 8 in, pots 8.00 Dracæna, specimen, any variety 10.00 Kentia Forsteriana, specimen 25.00 Kentia Belmoreana, specimen 25.00	$\begin{array}{c} 10.00 \\ 5.00 \\ 6.00 \\ 15.00 \\ 15.00 \end{array}$	10-in. pans, 12 varieties	

# **QUERIES and ANSWERS**

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.
Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

atter. Nothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

What other shrubs than Barberry and Privet, and what other vines than honeysuckle and ivy can you recommend for city gardens? Which of those named do you consider the most hardy? New York.

In addition to the Barberry and Privet, Spirous Van Houttei and Thunbergi, the Dentzias, Weigelas, Libaes and Syringas, or Philadelphus, are all absolutely hardy and suited tor city gardens. Regarding times other than honeysuckle and try, I strongly recommend Ampelopsis Englemani, Arostolochia Sipho, Akebia quinita, Actimava arguta, Wistaria in variety, with Euonymus radicars the most dependable hardy evergreen climber.

ARTHUR HERRINGTON.

Will you advise on the proper treatment of azalea plants after blooms drop to bring them through the summer in good condition for blossom around Christmas time? Also in regard to the socalled Holly Bush after the berries and the leaves drop? New leaves are appearing now in great numbers on the plants, and yet the berries are not all gone. These plants are also wanted in full foliage and with berries by Christmas.

H. W. C. New York.

Replying to the above inquiry would recommend that after the azalers have dropped their blooms that the plants be placed in an early vinery or heated structure maintaining 55 to 60 degrees at night to induce growth for next year's flowering. Feed the plants liberally with liquid cow manure and syringe with clear and soot water twice daily to keep them clean and healthy. On completion of growth, remove to cool house or frame and in June they may be placed in holes outdoors dug to depth of pots with a layer of ashes placed in holes to prevent worms entering the pots. The situation most suitable would be where plants may be partially shaded from afternoon sun. Keep syringing and watering and feeding occasionally. Before frost occurs bring plants into cool house and top dress any requiring it, using peat and sand, or leaf soil will do, potting very firmly. Bring into heat 60 degrees night temperature in November to get bloom for Christin, s. keep feeding and applying syringe well, and as buds develop a good soaking in tub or bucket will help to plump them up. Place in cool house as flowers open.

For holly the treatment advised is that if berries are still on bush in April they may be pulled off and stood outdoors as frosts are over and weather grows warmer. Later they should be placed into ground as recommended for azaleas to prevent drying out. It flowering in autumn and brought into cool house berries should tipen by Christmas. Keep as cool as possible without permitting frost to get at them. "GROWER.

Having had my peach crop ruined the last two seasons by late spring frosts, I have decided to experiment by burying 25 pounds of ice about the roots of my trees, in the expectation that this will retard budding until the danger of frost is over. If any of your readers have ever attempted a similar experiment I would appreciate hearing of their results, or of any other method that might hold the trees from budding until after all danger of frost is past. A. C. S.

Ôklahoma,

A matter that might prove of interest to many of your readers would be a discussion, through the columns of the "Gardeners' Chronicle," as to the comparative hardiness, and general worth otherwise, of Dutch-grown and English-grown hybrid rhododendrons transplanted in this country, say around Boston, New York and vicinity. There are also some other questions in regard to rhododendrons, which I will refer to later, that might be of interest, and on all of which I am seeking information myself.

Is, for instance, rhododendron album elegans, propagated and grown for a number of years in Holland, as hardy or otherwise, as the same variety, propagated and grown for a number of years in England, and then planted out in this country?

My own opinion, based, to be sure, on rather insufficient observation and experience, is that two plants of the same variety, one grown in Holland and one grown in England, are equally hardy and of equal vigor of growth, floral productiveness, etc. While, as I have stated, my observations have not been as broad as might be desired, I may say that I have had considerable experience in the matter, extending over a period of ten years or more. From time to time I have procured hybrid rhododendrons from nurseries in the vicinity of New York, Philadelphia and Boston. Some of these were freshly imported from the other side, and others had been established here some time; others still were of varying degrees of naturalization between these two extremes. Now, while I am not sure, I surmise the most of them were originally Dutch-grown; a very few I know to have been English-grown. As far as I have been able to follow up the various plantations in which these rhododendrons were used, they seem to be doing finely, proving as hardy and satisfactory as rhododendrons ever are; the few definitely known, however, to have come from England showing no superiority over those which probably came from Holland.

However, a number of nurserymen and growers are quite sure of the superior value of English-grown hybrid rhododendrons, stating it as a fact beyond dispute, some accounting for it merely by climatic differences, others by soil differences, others by differences in the stocks used for grafting and others by a combination of two or more of these circumstances.

It is said that in England R. catawbiense is largely used as a stock, and that in Holland R. ponticum, and occasionally the form known as Cunningham's white-a variety or hybrids of R. caucasicum—are used, the implication often being that the supposedly tenderer R. Ponticum would necessarily not produce as hardy a plant as when R. catawbiense is used for a stock.

The question suggests itself, What form of R. catawbiense is used as a stock? A form of so-called R. catawbiense frequently imported from the other side seems to be quite a different plant that the true R. catawbiense offered by collectors of native plants in this country, and not as hardy, perhaps not much hardier than R. ponticum. Is this the form used as a stock? If so, how much better is it than R. ponticum?

In the spring of 1904, which had been preceded by an unusually severe winter, I saw on Long Island, N. Y., a fairly large hybrid rhododendron (I have no record of the variety), say, five to six feet high, from the base of which suckers, evidently R. ponticum, had grown to a height of two or three feet. These suckers had grown to a height of two or three feet. These suckers were very much "scorched," but the rest of the plant, the hybrid part, had emerged from the winter's test about as green and fresh looking as it was the fall before. This occurrence suggests that, possibly, where rhododendrons are grafted down low, so that the stock has some protection from the winter's severity, R. ponticum does not have that unfavorable influences on the scion it is sometimes said to have.

One nurseryman of this country has said that he imported rhododendrons from Holland quite small, and grew them for a number of years in his nursery "to get the water out of them." Another nurseryman has said that Dutch-grown rhododendrons seem more susceptible to drought, the first year or so, than those from England, but that thereafter there is no difference in this connection. The question is pertinent: Are not hybrid rhododendrons obtained from England sometimes really of Dutchgrowth?

Another question: Are own root hybrid rhododendrons obtainable, and have they any advantages or disadvantages as compared with grafted plants? Suckering in the case of rhododendrons seldom, if ever, proves as much a nuisance as in the case of roses, etc.

Following is a recapitulation of the chief points to be brought out in the discussion:

- The comparative hardiness in this country of Dutch and English-grown hybrid rhododendrons of the same kinds.
  - b. The causes of the difference, if any.
- c. The comparative vigor (aside from hardiness), floral productiveness, quality of foliage, etc., of Dutch and English-grown hybrid rhododendrons.
- d. The cause of the difference if any.
- e. The availability and merit of rhododendrons on their own

The opinions advanced in the foregoing as my own are, most of them, only tentative. I wish to approach the matter with an open mind, and I am ready to change my views upon the submission of experiences which may prove my position in the matter wrong.

HANS J. KOEHLER.

Mass.

Can any of your readers advise me of the value of spent hops from breweries as a fertilizer? What is the best method to use for mixing and applying them to the soil?

PELHAM. New York.

# NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st.,

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society.

L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society.

A. B. Saunders, secretary, Clinton, N. Y. 1

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 40 West 28th st., N. Y.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

Women's National Agricultural and Horticultural Association.

Miss Margaret Jackson, secretary, Englewood, N. J.

## LOCAL SOCIETIES

Bernardsville Horticultural Society W. G. Carter, secretary, Bernardsville, N. J. First Thursday every month, Horticultural Hall, Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Dobbs Ferry Gardeners' Association. B. Harms, secretary, Dobbs Ferry, N. Y. First Saturday each month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls, N. Y. Second Wednesday every month except

May and June, Poughkeepsie, N. Y.

Elberon Horticultural Society. George Masson, secretary, Oakhurst, N. J. First Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass. Second Tuesday every month.

Gardeners' and Florists' Club of Baltimore. House. N. F. Flittin, secretary, Paterson Park, Baltimore, Md.

Florist Exchange Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. First and third Saturday every month, Oct. to April; first Saturday every month, May to Sept., Horticultural Hall.

Lenox Horticultural Society.

G. H. Instone, secretary, Lenox, Mass. First Saturday every month.

Los Angeles County Horticultural Society. Henry W. Kruckeberg, secretary, Los Angeles, Cal.

First Tuesday every month.

Massachusetts Horticultural Society. William P. Riche secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society. Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Fourth Friday every month, Red Bank,

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Morris Country Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown. N. J.

Nassau County Horticultural Society. Harry Jones, secretary, Glen Cove, N. Y.
Second Wednesday every month, Pem- The Pittsburgh Florists' and Gardeners' broke Hall, 6 p. m.

New Bedford Horticultural Society. Jeremiah M. Taber, secretary, New Bedford. Hotel. Mass.

First Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street, brary, 8 p. m.

Orange, N. J. First Monday every month, Jr. O. W. A. M. Hall., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London,

Conn.

Second Thursday every month, 38 Main st.

Newport Horticultural Society.

Wm. Gray, secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club.

John Young, secretary, 54 W. 28 st., N. Y. Second Monday every month, Grand Opera

North Shore Horticultural Society. Second and fourth Monday every month, Jas. Slater, secretary, Manchester, Mass. First and third Fridays every month.

> North Shore Horticultural Society E. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

Monthly, irregular, May to October, New North Westchester County Horticultural and Agricultural Society.

M. J. O'Brien, secretary, Mt. Kisco, N. Y. Third Thursday every month, except June to August, at 8 p. m.; December to February, 3 p. m.

Oyster Bay Horticuitural Society.

A. H. Kennedy, secretary, 156 West 34th street, New York. Fourth Friday every month, Oyster Bay,

N. Y., 8 p. m.

Pacific Coast Horticultural Society.

W. A. Hofinghoff, secretary, 432 Phelan Bldg., San Francisco, Cal.

First Saturday every month. Redmen's Bldg.

Pasadena Horticultural Society.

Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month,

Paterson Floricultural Society.

Sebastian Hubschmitt, Jr., secretary, 61 Seventh ave., Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society.

David Rust, secretary, Broad and Locust sts.. Philadelphia. Pa.

Third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut st., Paterson, N. J.

First and last Friday every month, Working Man's Institute, Paterson, N. J.

Philadelphia Florists' Club.

Second Wednesday every month, except David Rust, secretary, Broad and Locust July and August, 8 p. m., Madison, N. J. sts., Philadelphia, Pa.

First Tuesday every month, Horticultural Hall, 8 p. m.

Club.

H. P. Joslin, secretary, Ben Avon, Pa. First Thursday every month. Fort Pitt

Rhode Island Horticultural Society.

A. C. Miller, secretary, Providence. R. I. Fourth Monday every month, Public Li-

Shelter Island Horticultural and Agricultural Society.

First and third Thursdays every month.

Southampton Horticultural Society. William McLeod, secretary, Southampton, N. Y.

First Thursday every month. Memorial Hall.

Tarrytown Horticultural Society.

E. W. Neubrand, secretary, Tarrytown, N. Y.

Last Tuesday every month, 7:30 p. m.

Tuxedo Horticultural Society.

Thomas Wilson, secretary, Tuxedo Park, N. Y. First Wednesday every month.

Washington, D. C., Florist Club. J. L. Mayberry, secretary. Washington, D. C. First Monday every month.

Yonkers Horticultural Society.

Thos. Mahoney, secretary, Yonkers, N. Y. First Friday every month, Hollywood Inn., 8 p. m

Westchester and Fairfield Horticultural Society.
J. B. McArdle, secretary, Greenwich, Conn

Second Friday every month, Doran's Hall. Greenwich, 3 p. m.

# GARDEN CLUBS

Westchester and Fairfield Horticultural Mrs. Henry S. Munroe, secretary, 501 Wociety, Summer show, Greenwich, Conn., 120th street, New York. Society, Summer show, Greenwich, Conn., June . Fall show, Stamford, Conn., Nov. 2-4.

International Garden Club.

Miss Mary M. Kearney, secretary, 123 East Miss Sarah W. Hendric, secretary, Glosse 53rd street, New York. Club House, Bartow Mansion, Pelham Bay Park, N. Y.

The Garden Club of America.

Mrs. J. Willis Martin, president, 1721 Locust street, Philadelphia, Pa.

The Garden Club of Alma, Mich. Mrs. E. J. Lamb, secretary, 803 State street. Twice a month at members' residences.

The Garden Club of Alleghany County, Pa. Mrs. F. H. Denny, president, Sewickley, Pa.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich. Miss Annie Condon, secretary, 920 University avenue.

The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle. secretary, Gladstone, N. J.

Second and fourth Thursdays, middle of April to November. August excepted.

The Garden Club of Cleveland, Ohio. Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Mrs. F. K. Holister, secretary, East Hampton, N. Y.

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood, N. J.

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob, Conn.

At members' residences.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson P. O., Md.

First and third Thursdays, April to December at members' residences.

The Gardeners of Mont. and Dela. Counties, Mrs. Aubrey Pearre, Jr., secretary, Pikes-

Miss Elizabeth D. Williams, secretary, Haverford, Pa.

At members' residences.

The Weeders' Club, Pa.

Miss Ellen Winsor, secretary, Haverford, Pa.

First and third Wednesday at members' residences.

The Garden Club of Lake Forest, Ill. Mrs. Tiffany Blake, president, Lake Forest, Ill. The Larchmont Garden Club, N. Y.

Mrs. Edgar Park, secretary, Larchmont, N. Y. First Thursdays.

The Garden Club of Lawrence, L. I.

Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass.

Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York.

First and third Mondays, June to October at Lenox.

The Garden Club of Litchfield, Conn.

Second Friday, June to October at Litchfield.

The Garden Club of Michigan.

Pointe Farms, Mich.
At members homes. Two Spring and one

Fall Shows. Fifty-third street, New York.

The Millbrook Garden Club, N. Y.

Mrs. Keyes Winter, secretary, 125 E. 78th street, New York.

Meet at Millbrook, Dutchess County, N. Y.

The Bedford Garden Club, N. Y.

Mrs. Benjamin W. Morris, secretary, Mt. Kisco, N. Y.

The Garden Club of New Canaan, Conn.

Mrs. Francis H. Adriance, secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I. Miss Dorothea G. Watts, secretary, New-

port, R. L. Annual Meeting, August. Others when called. Five monthly summer shows.

The Newport Garden Club.

Mrs. Chas. F. Hoffman, president, 620 Fifth avenue, New York.

The Garden Club of New Rochelle, N. Y. Mrs. Lucius W. Hitchcock, Premma Point Park.

Members residences and Public Library.

The Garden Club of Norfolk, Conn.

Philemon W. Johnson, secretary, Norfolk, Conn.

Second Wednesday each month at Public

North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa.

Miss Ernestine A. Goodman, secretary. Chestnut Hill.

The Garden Club.

ville, Md.

The Garden Club of Ridgefield, Conn.

Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York.

Twice monthly at Ridgefield. Also exhibitions.

Rumsen (N. J.) Garden Club. Mrs. Howard O. Borden, secretary, Rumsen. N. J.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md. ber 4.

The Garden Club of Rye, N. Y.

Mrs. Samuel Fuller, secretary, Rye, N. Y. First Tuesdays, April to October. Also special meetings and Flower Shows.

The Garden Club of Seabright, N. J. Mrs. H. L. Cranford, secretary, Seabright, N. J.

The Shedowa Garden Club, New York. Miss Mary Young, secretary, Garden City, N. Y.

Second Wednesday each month at mem-ers' residences. Vegetable and flower bers' residences. shows, June and September. Correspondence with other clubs invited.

Short Hills Garden Club, N. J.

Mrs. C. H. Stout, secretary, Short Hills, N. J. Weekly at Short Hills Club House. Flower Shows April and June, and annual Dahlia Show.

The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W. 33rd street, New York.

Twice a month in summer at Southampton, L. I.

The Staten Island Garden Club, N. Y. Mrs. J. Harry Alexander, secretary, Rose-bank, S. I.

Twice a month. At members' homes. Winnetka, III.

The Garden Club of Trenton, N. J. Miss Anne MacIlvaine, secretary, Trenton, N. J.

Bi-monthly meetings at members' residences.

The Garden Club of Illinois.

Mrs. William G. Hibbard, Jr., secretary, Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.

Mrs. Morris Rutherford, secretary, Warrick, Orange County, N. Y.

Warrenton Garden Club, Virginia. Mrs. C. Shirley Carter, secretary, Warren ton, Va.

## HORTICULTURAL EVENTS

Fourth National Flower Show, under the auspices of the Society of American Plorists and Ornamental Horticulturists, Philadelphia, Pa., March 25 to April 2, 1916.

International Flower Show, Grand Central Palace, New York, 1916.

American Sweet Pea Society, Special show, Panama-Pacific International Exposition, San Francisco, June 4, 1915. Annual Sweet Pea show, Newport, R. L. July 8, 9, 1915.

American Gladiolus Society, Annual show, Newport, R. L. August 18, 19, 1915.

Chrysanthemum Society of America, Annual show, Cleveland, Ohio, November 10-14, 1915. Special show, San Francisco, Cal.

Horticultural Society of New York, Monthly show, Botanical Gardens, Bronx, May 8, 9. Annual Fall show, November 4-7.

Lenox Horticultural Society, Summer show, Lenox, Mass., July 27, 28.

Michigan Garden Club, Daffodil show, Country Club, Detroit, May

Newport Garden Club and Newport Horticultural Society, Midsummer show, August 18, 19, 1915.

New Jersey Floricultural Society, Dahlia and Vegetable show, Oringe, N. J., OctoPROPERTY OF THE COMMENT OF THE CONTROL OF THE CONTR

# Shorburn's Seeds

Many Gardeners are ordering our new

# Red Sunflower

THEY appreciate that for tall borders and in shrubbery it is most effective. Its six rect of herelit are full of grace and distinction, whether on a large or small place.

The illustration below gives but a faint idea of its real beauty, which lies much in its brilliant coloring-dark center with petals of bright rich red, merging to yellow at the tips.

Ask us to include some of this seed when sending your next order, we will forward you a generous package for ten cents, and will send with it our 1915 Spring Catalogue if you have not yet received your copy.

 $Y_{\ell-1}=u-1-\ell \qquad \qquad \ell = \ell$ 

## J. M. THORBURN & CO.

531 Barclay St., through to 54 Park Place NEW YORK



The plans for the several flower shows to be held at Newport this year are about completed, and an active season is looked for, A rose show is to be held in June (the exact date not yet set) by the Newport Horticultural Society in conjunction with the Garden Association. A sweet pea show, July 8, 9, at the Casino in conjunction with the American Sweet Pea Society, the Garden Association and the Newport Garden Club. A mid-summer show, August 12, 13, 14, in conjunction with the Newport Garden Club, an outdoor event, with tents for tender exhibits, etc. The gladioli show, August 18, 19, in conjunction with the American Gladioli Society and the Newport Garden Association. It is also possible that small monthly shows will be held in September and October in conjunction with the Garden Association for dahlias and chry-

The schedule for the Mid-Summer Exhibution will be issued in a few days, and may be had on application to William Gray, se retary Newport Horticultural Society, Newport, R. I. The schedule for the sweet product of the sweet production of the sweet production of the second production of the sweet production. be obtained from the same address.

#### OYSTER BAY HORTICULTURAL SOCIETY

The regular monthly meeting of the Oyster Bay Horticultural Society held on Wednesday evening, March 24, was most blooms and pot plants. The judges were Messis, Alired Walker, John L. Chapman, Messis, Afficial volumer, norm of the experiment of the extra transfer in the experiment of the extra transfer in the experiment of schilzanthus, Jas. Duthie first prize; for experiment of the hibition only, group of plants by James Duthic, special prize of \$5; specimen of Azalea by Jos. Robinson, C. C.: forced blac by Jos. Robinson, C. C.: amaryllis scedling by Jos. Robinson, honorable mention; vase of mixed flowers by John Sorosick, honorable mention; vase of Darwin tulips by Chas. Mills, thanks of society; vase of Cottage talips by Jos. Robinson, honorable 3 pots of Lilium Longitlorum by Clas. Mills, henorable mention; 3 heads cauliflower by Chas, Mills, honorable mention; vase of Cottage tulips by Arthur Pat-Frank Kyle, thanks of society; vase of carration, Enchantress, Jas. Duckham, honor-Alle mention; vase of antirchinum by Frank Kyle, thanks of society: vase of antirrhimim. Jas. Duckham, hoporable mention.

Mr. John Everitt, President of the National Association of Gardeners, and Mr. C Ebel spoke on the benefits of the National Association of Gardeners to the local society and the individual gardener. Mr. Everett's remarks were brief and to the point. Mr. Ebel handled his subject very well and enlightened all who cared to ask questions. The questions were asked and freely discussed by a large number of members and their friends who were present.

Mr. Jas. Duthie donated his prize received for group of plants to the society, to be used at the next show, as the society saw fit

Mr. Herbert Oliver and Mr. Donald Rossi were elected to active membership, and eight petitions for membership were received.

The exhibits for next meeting will be 1 pot campanula, 1 pot lilies and 2 heads lettuce.

ANDREW R. KENNEDY, Secretary.



this harder of tegetables, lawn a. l shrubb, re-grown with Radiin Draid Fertilizer (R. A. F.)

For better flowers, a perfect lawr, lexuriant shrubberns, more vessel-bles and better vesetables—and faincreasing the rapidity of all vegetable—and plant life use Radium Brad Tertifizer (R. A. F.).

Use it when plantine; if planting has already been done, it should be applied frequently. Dig it in around the roots, top-dress your lawrs, feed your plants food so that they will a warner would not be lisappointed.



A solution and it roughly from a construction of Kinggor Land (Construction) and the construction of the c

In H. H. Rull, of Columbia, University, says of tests he mode with Rashum Bright Ferrillae (R. A. F.): "These tests also demonstrated that the quality of Ramings on a vegetal to any strength of problem of the pulling of the same matter of ground It also wonderfully improves the large of the vers.

#### SAMPLE CAN, PREPAID, 25c

From Ready, St. March, 1982. The string Ready of Leathback (R. V. F.) and the string of the string o

2 1b. can. \$ .50 Radium 5 1b. can . 1.00 makes things 10 1b. can . 1.75 25 1b. can . 3.75

Free Book tells how

Permanent territorial representatives wanted to call on dealers, Nice is not protectors

Radium Fertilizer Company 208 Vanadium Bldg.





Manufactured in any length
INDESTRUCTIBLE - COMFORTABLE
Write for prices, advising requirements
Steel Furniture Co. 1979 So. Buchanan Ave. F. CONTROL OF THE PROGRAMMENT OF





#### PITTSBURGH FLORISTS AND GARDEN-ERS' CLUB.

The regular meeting of the club was held on the 2nd inst, in Parlors A and B of the Fort Pitt Hotel.

Mr. Carl Becheret, gardener at Dixmont Hospital, showed cyclamen in different colors and terms. Many of the flowe's were waved and fluted after the manner of the Spencer sweet peas, but more pronounced. In some cases the blooms opened out nearly flat. All the cyclamen he showed were either units ofly floriterous, or revel in the shape and size of their blooms. He also showed tulips, hyacinths and some good carnation seedlings. He was awarded a cultural certificate for cyclamen.

Mi. I. Tyler, Lardence for C. D. Armstrong, Pittsburgh, showed seedling cypripediums, Dendrobium Nobile Virginale, a good white suitable for commercial work, and Odonfioda Bradshawae. He was awarded a cultural certificate for the cypripediums.

foreman, showed hyacinths La Victoire; foreman, showed hyacinths La Victoire; Correggio, a white with very large bells; Prince of Austria, his favorite single tulip; daffodils and Matador, a dark red, very fine Cineraria.

An interesting discussion took place better (M. Tresson M. Becher (Mr. Jones daining that toba co-stems in a greenhouse, especially when wet, were of no value as at insection, and M. Becher (S. M. Jones daining that to all the pt. for a strend of a virond tree, when them, When a loss disagree, etc., etc.

A talk was given on the "Cities of Germany," illustrated by colored lantern slides, by Dr. Emil Krapf, who gave the interesting talk on "Eathe Active Earth" to the February meeting.

We don't shoved two plants of adviaone grown in radio-active earth, the other not. They were passed around among the members that the difference might be noted, which was in favor of the one grown in the earth treated with the radio-active fertilizer.

At the April meeting it is expected that some of the professors from Pitt University will to be a some late discoveries in chemistry as applicable to plant growner.

H. P. JOSLIN Secretary

# NEW LONDON HORTICULTURAL SOCIETY.

The New London Horticultural Society held its March meeting in its new home, located in the Municipal Building in State street. The speaker for the evening was Mr. W. J. Schoonman of the New London County Nurseries, Subject, "Trees for Pleasure and Profit," discussing how to preserve the trees for timber and beauty,

Mr. Chas, Schrier, of Boston, who has charge of Mr. Schoonman's spraying and care of trees, gave a few helpful remarks when and how to spray, showing specimens of twigs, etc., that where affected by scale and those which had been given care and attention.

The above speakers opened up quite a varied discussion among the members of the society, and a very pleasant evening fol-

Cyclamen and stocks were exhibited in fine condition by Ernest Robinson, Plant Estate; Darwin tulips, schizanthus and narcissus from the Harkness Estate.

Some very fine spikes of snap-dragon came from Mr. Neumann of the Mitchell place; carnations and Forsythia were shown from the treasurer's garden, "S. L. Ewald," and the president's Alfred flowers, the lat-

ter being in charge of the G. Palmer Estate, Pequid avenue. The schedule for 1915 exhibitions were on hand for the members.

Professor Jenkins, of New Haven Experiment Station, is expected to address the April meeting of the society

STANLEY JORDAN.

Harkness Estate, New London.

#### CONNECTICUT HORTICULTURAL SOCIETY.

The first March meeting of this society was held in the County Building, Hartford, on the evening of March 12. President Warren S. Mason presiding. It was voted to hold a show on Thursday, June 10, the proceeds above expenses to go to the Red Cross Society. As announced, this was "Carnation" night, and Mr. William A. Dawson, of Willimantic, exhibited his new seedling carnation "Red Wing," registered under No. 565 by the Carnation Society of America. Mr. Alfred Cebelius exhibited the following roses: Ophelia, Sunburst, Killarney and Mrs. Aaron Ward, also carnations White Enchantress, Enchantress and Beacon. A. N. Pierson, Inc., of Cromwell, displayed a vase of Arawana, a very dark red carnation. President Mason had on exhibition a vase of Spirea Philadelphia, also carnations Matchless, Princess Dagmar, Philadelphia, J. H. Gray and Mrs. C. W. Ward. John F. Huss, G. H. Hollister and George B. Baker were appointed judges, and, after much deliberation, decided as follows:

William A. Dawson, first-class certificate. A. N. Pierson, Inc., first-class certificate. Alfred Cebelius, cultural certificate.

Warren S. Mason, honorable mention.

The following committee of three was appointed to make final arrangements for the June Flower Show: G. H. Hollister, chairman; Ed. A. Brassill and J. M. Adams.

At the next meeting there will be a demonstration of the art of pruning fruit trees by G. H. Hollister, C. H. Sierman and John F. Huss, W. W. Hunt to furnish the stock. This will also be rose night, and we expect to have our lady members with us.

ALFRED DIXON, Secretary.



# 44 Years the Leading Hotbed Sash Manufacturers.

Ours are all skillfully made from only the very best grade of gulf cypress. They are built to withstand all sorts of hard usage.

Our glazed Hotbed Sash and double light sash are very popular among gardeners all over the country.

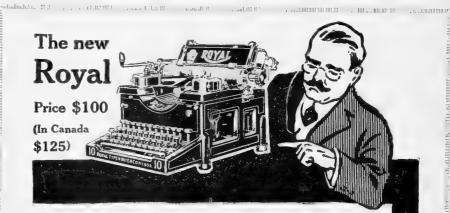
A large stock of all sizes is always on hand for immediate shipment.

Write today for estimate.

# Metropolitan Material Co.

1396-1412 Metropolitan Ave. Brooklyn, N. Y.

If you are a professional gardener the details of the contest for President Everitt's one hundred dollar gold prize, for the best essay on several horticultural subjects on page 191 will interest you.



# "The Typewriter of Perfect Presswork"

THE flawless presswork of the new Royal Master-Model 10 carries the high-grade business message in as fine form as your thoughts themselves! Royal presswork reinforces the resultgetting power of your business-letters—for it adds the forceful stamp of quality to every letter you sign.



Heretofore, you have been obliged to accept a standard of typewriting inferior to high-class printing, yet you would not accept poor printing. But with the new standard of "typewriter presswork" created by the new Royal "10," it is no longer necessary to accept inferior typing in your office.

Pick up the letters you have signed to-day. Examine them—then see a sample of the faultless presswork of the Royal! On which kind of typing will you send your signature to represent YOURSELF?

Which one will you trust to convey unmistakably to the world the character of your house?

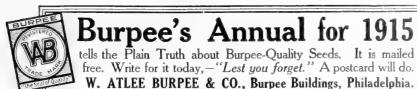
# Get the Facts!

Send for the "Royal man" and ask for a DEMONSTRATION. Investigate the new *master-machine* that takes the "grind" out of type-writing. Or write us direct for our new brochure, "BETTER SERVICE," and book of facts on Touch-Typing—with a handsome Color-Photograph of the new ROYAL MODEL 10—all sent free to typewriter users. "Write now—right now!"

ROYAL TYPEWRITER COMPANY, Inc. Royal Typewriter Building, 364 Broadway New York







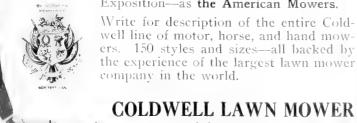
# Coldwell Walk-Type Rotor Mowers

THESE latest additions to the Coldwell line are real labor savers for small parks and estates. All have the Coldwell patented demountable cutters—the cutters that make long delays impossible.

The Walk Type Line is partially described below:

Model.	Weight on Drive Roller.	Width of Cut.	Capacity Per Hour,	Price.
F	1,100	40	1 acre	\$475
G	600	35	31 4	\$325
Н	500	30	1/2 44	\$250

Coldwell mowers are used exclusively at the Panama-Pacific Exposition—as the American Mowers.



COMPANY

Manufacturers of Hand, Horse and Motor Power Lawn Mowers

Offices and Factory at NEWBURGH, N. Y.

Warehouses at PHILADELPHIA and CHICAGO

#### TUXEDO HORTICULTURAL SOCIETY.

It is could be to the Torondo II to the later. Society the total and there is a little bown 2 to no the Pater on the later of the later. The later of the later o

Secretary.

# LAKE GENEVA GARDENERS' ASSOCIATION.

The first regular meeting of the above association, under the new board of directors, was held Tueslay, March 16 in Hortz cultural hall. The routine business being disposed of, the reports showing the association in good financial condition, the following new members were proposed and elected by acclamation: R. P. Montgomery, S. Gotter, P. Peterson, H. West and F. Brady.

It is the plan of the new board of directors to make the meetings more interesting and instructive, and it is hoped that in the future, one or more interesting papers on seasonable subjects will be read and discussed at the meetings. A. Martini read a paper on "Vegetable Culture in Frames" and Alex, Johnson gave a short talk on "Seasonable Work." Both papers were well discussed and a very interesting and instructive evening was enjoyed by those present. For the next regular meeting, April 6, T. Sampson will talk on "Sweet Pea Cultivation" and T. Blackwood on "Roses Under Glass."

"Roses Under Glass.

The board of directors for 1915 are as follows: A. J. Smith, president; W. P. Longland, vice-president; T. Niles, secretary; A. Johnson, treasurer; A. Martini, F. Sampson, T. Blackwood, M. Barrett, W. Wahlstelf.

# RAILWAY GARDENING ASSOCIATION.

A special nection of the mittee of the Railway Gardening Association was held in Philadelphia, Pa., on March 25, for the purpose of perfecting arrangements for the 1915 convention to be held on August 17 to 20, in Detroit, Mich. The following members were present: President Paul Huebner, Philadelphia, Pa.: Vice-Presidents John Gipner, Niles, Mich.: J. E. Smith, Ridley Park, Pa.: J. E. Byrnes, Ref. M. J. F. and Sagastony W. E. Hut big.

bersburg, Pa., and Secretary W. F. Hut his

and M. F. Geary, Haverford, Pa.

of one to make arrangements for convention hall, hetels, etc., he to report to executive committee.

## WOMEN'S NATIONAL HORTICULTURAL AND AGRICULTURAL ASSOCIATION.

Under the auspices of the New York Horticultural Society the Women's National Agricultural and Horticultural Association will hold a conference at the Bronx Botanical Garden on May 7 and well known authorities on agriculture and horticulture will deliver addresses.

Although the association is a comparatively recent organization, it has grown with such rapidity and vigor that today its members are drawn from 30 states and represent widely varied interests.

Any one who believes in the objects of the association and wishes to further them is eligible to membership. This means that the membership includes women of many professions, all having a common interest in some phase of agriculture or horticulture. City dwellers with small back yards, flat dwellers with only window boxes, successful women farmers and commercial growers, women deeply interested in agriculture or horticulture but hesitant about making a start, the owner of the large estate and notable garden, landscape gardeners and amateurs, social and settlement workers. school garden and playground enthusiasts between and writers on horticulture all find a welcome in the association. Men are not excluded from membership.

Through the association a greater interest is being created among women in all phases of gardening and soil production. In fact, one of the definite aims of the or ganization is the bringing together of producer and consumer, employer and employee, gardener and land, individuals who

might form a partnership.

The formation of local branches is an other object. These branches are independent in their working, but affiliated with the parent society; they will hold local con-ferences and exhibitions, and encourage and facilitate the direct sale of produce from men and women on farms to people in town.

The work to be undertaken by the clubs will vary greatly in different regions. Some communities of producers will be largely and practically interested in marketing, mutual co-operation and the improvement of country life, esthetically as well as practically. In town and villages there is the work of school and vacant lot gardens; in suburbs there are garden clubs, and everywhere practical interest in the economic relation between the farmer and the towndweller. In every community there is opportunity for a club to undertake some

activity which very properly comes within the W. N. A. & H. A.

Officers of the association are, besides six vice-presidents: President, Mrs. Francis King, Alma, Mich.; recording secretary, Miss Hilda Loines, Brooklyn; treasurer. Miss Louisa G. Davis, Ambler, Pa., and general secretary, Miss Margaret Jackson. Englewood, N. J.

# THE GARDENERS' CHRONICLE

Is a Journal of Useful Technical Knowledge for the Advanced Amateur

SUBSCRIPTION, \$1.50 A YEAR ... 6., 10c 6/2 P.3 DOUBLUBERREE, DESHERBERGERREET 150 RS...

#### HERE'S HOPIN'!

Last year wasn't the very best -Purty hard by trouble pressed; But the rough way leads to rest-Here's hopin'!

Maybe crops waz short; the rills Couldn't turn the silent mills; But the light's behind the hills-Here's hopin'!

Where we plant roses sweet Thorns come up an' prick the feet; But this old world's hard to beat-Here's hopin'!

P'r'aps the buildin' that we planned 'Gainst the cyclone couldn't stand; But, thank God, we've got the land-Here's hopin'!

Maybe flowers we hoped to save Have been scattered on a grave; But the heart's still beatin' brave-Here's hopin'!

That we'll see the mornin' light; That the very darkest night Can't hide Heaven from our sight-Here's hopin'! -Selected.



This perfect lawn is at Harrisburg, Pa. We will gladly send you this plate and another one of it before. Appliant Hum is was used. The contrast is most convining.

Rhedodenchons in their native state are found with roots buried in rich leaf Humus. It's nature's way. Follow nature. Use Alphano Humus for

# For Your Lawn and Shrubs Follow Nature's Way of Soil Enriching

THE only difference between highly fertile soils and barren, unproductive one

is the difference in the Humus they contain. It is apparent, then, that Humus is the backbone of all soil fertility.

Nature makes her Humus from decayed vegetable matter. Six feet of leaves, for example, will make three inches of high value Humus in 250 years of so.

Down at Alphano, N. J., is a rich deposit of Humus, centuries old. This we concenpare it in powdered form, all leady for your use.

Mixed with soil, it gives an immediate and lasting fertility.

Being **odorless** and free from weed seeds, it is ideal for either new or old lawns. For gardening it can't be beat.

Reing nature's balanced ration, it is, in fact, good for every thing that grows in the ground.

For further facts and direc-

tions for use, send for the Humus Book. Let us know

amount ground you want to enrich, and we will advise quantity needed.



17-G Battery Place, New York

\*\*\*\*\*

WE

# For Lasting Strength and

substantial and practical protection. The finishing touch to a beautiful premises, or a park. Fits in harmoniously with nature's



# CYCLONE-WAUKEGAN ORNAMENTAL

IS ORIGINAL AND EXCLUSIVE IN DESIGN

Makes a lasting improvement, because substantially built of heavily galvanized wire, closely and firmly woven. Permits an unobstructed view of the grounds. Easy to erect on wooden or iron posts—adjusts itself to uneven ground;

stands firm and lasts many years without repairs. Entrance Arches for private grounds or parks, with fence of various heights and designs, to suit your wishes.

We manufacture also Flower-bed and Lawn Border, Trellises, Tennis Court Back-stops, Tree Guards, etc.

Let our Engineering Department help you solve your fencing problems. Consultation Free

Handsomely Illustrated Catalog giving designs and prices sent on request.

Cyclone Fence Co. Dept. Waukegan, Ill.

SUPERINTENDENTS SPARKS E PRIVATE GROUNDS



HEN it comes to Green-Houses. come to

Hitchings of Compan

General Offices and Factory-ELIZABETH, N. J.

New York 1170 Broadway

Boston 49 Federal St. ekekekekekekekeke

Philadelphia 40 S. 15th St





# New Dodson Sparrow Trap

to be timed thap on lett automatic cope tripon right, catches spin in visite both ends. Notice trial life this Made of strong, electrically veiled with lasts of a tree trial life this Made of strong, electrically veiled with lasts of a tree Proposed to be though, the old style bodson Trap a strong strongsful to two years thousands in use, a first is no individually total trial should native broks will return to your garder. The station is a quarielsome pest. U. S. Pept of venedime. Butther advocates destroction of English Sparrows of wester last Real lights. Write for Station Trap booklet and for Bodson Burd Book, which tells how to won tative birds to live in your stiden both tree. Mr. Bodson, a Diector of the Illitors Audulion society, has been furbour, find horses for 20 years. Bodson Uses with 

10SEPH H. DODSON 732 Security Bldg. Chicago, All



11.0 Mada Lasa - Lasa Applica Computer 
# GARDENERS

The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

# PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St. NEW YORK CITY

# JNO. JAY HOWE

Rustic Architect and Builder

Landscape Gardener

Any desired effect can be had by Distinctive, Artistic and Permanent Structures, Ornaments and Furniture made from Cork, Trees, Branches and Roots in their Natural State.

Rustic Bungalows, Log Cabins, Play Houses, Bath and Boat Houses, Chinese, Japanese, Tea and Summer Houses, Swiss Chalets, Pergolas, Rose Arches, Benches, Tennis Court Back Stops, Umbrellas, Lamp Posts, quickly constructed.

In stock large quantities of Benches, Chairs, Tables, Canopy Settees, Bird Houses, Flower Stands, Vases, Tubs, Athenian and Spartan Furniture, Decorations and Ornaments, made of Red Heart Cedar, California Red Wood, Silvery Birch, Chestnut and Locust.

232-234 PEARL STREET

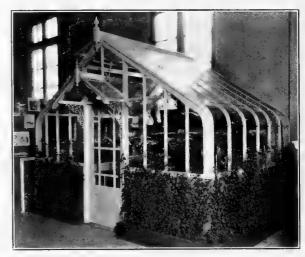
**GRAND CENTRAL TERMINAL** 

Telephone: John 5056

Telephone: Murray Hill 7720

NEW YORK, N. Y.

# The Metropolitan Greenhouse Display at the New York Flower Show—A Pronounced Success



Florists and Gardeners were attracted by the general appearance and utility of the Metropolitan greenhouse display. The graceful and artistic lines were commented upon by everyone. The practical and solid construction was quickly noticed by the "knowing ones."

Put Your Greenhouse Problems Up to Us. Let us submit plans and prices. We go anywhere in the U. S. A.

Metropolitan Material Company

and the state of t

1396-1412 Metropolitan Ave.

Brooklyn, N. Y.

TELEPHONE CONNECTION

# WILLIAM F. LEARY

SCIENTIFIC CARE OF TREES SPRAYING, PRUNING, CEMENTING

SPRAYING INSURES THE LIVES OF YOUR TREES Contracts taken in any part of the United States TREES MOVED

212 MAIN STREET, Y. M. C. A. NEW ROCHELLE, N. Y.

# Pulverized Sheep Manure From Big Feeding Barns No Adulteration-No Weed Seeds



THIS mark stands for the clean-est Sheep Manure in America est Sheep Manure in America no pig manure, no adulteration—nothing but Sheep Manure, dried and pulverized, and all weed seeds killed. We guarantee it absolutely clean. Shipped in 100 lb. bags. Write for prices, delivered.

NATURAL GUANO CO., 805 River St., Aurora, Ill.



# The Recognized Standard Insecticide

For green, black, white fly, red spider, thrips, mealy bug and soft scale

# WHERE WE STAND

New York.

Aplaine Mann'acturing Company, Madison, N. J.

Gentlemen:-

I am returning the enclosed bill as you have not allowed me my usual professional discount of 20% or 25%, which the other manufacturers of agricultwal chemicals allow me. Is I am acting as a purchasing agent for a great many places in this cicinty and as a large number of orders pass through my office every year, it is only just that I should be allowed the usual agency commission. Will you kindly let me hear from you in this matter? Yours truly,

Dear Sir:-

Your favor of the 28th ult. at hand, in which you ask us to allow you a discount on the enclosed bill.

We have only two prices one a wholesale or dealers price, and the other a retail price. The wholesale prices are quoted and allowed only to dealers who actually handle our products and carry them in stock.

It has always been our policy not to allow any discount to landscape gardeners or to purchasing agents of private estates, as we understand it is the custom of the estate owners to pay these buyers for

the services they render.

the services they render.

We are very much opposed to the practice of some of these buying agents who return the discounts, when they are allowed them, to their clients. This has created a false impression and one that we believe has been decidedly detrimental to the interest of horticulture and no doubt in some instances has served to discredit the loyalty of some of our best gardeners to their employers. A gardener would not be able to obtain these discounts from us and we certainly would not be justified in granting them to any other representative of the estate owners. any other representative of the estate owners.

Yours truly,
Aphine Manufacturing Company,
M. C. Ebel, Treasurer.

FUNGINE For mildew, rust and other blights. It is perfectly safe to apply to fruits and vegetables, as it is non-poisonous.

VERMINE For eel, cut and wire worms working in the soil. It can be applied to all vegetation.

NIKOTIANA A 12% Nicotine solution properly diluted for vaporizing, fumigating and spraying.

**SCALINE** For San Jose, Oyster Shell and all scale on trees and hardy stock.

If you cannot obtain our products from your local dealer, send us your order with remittance, and we will ship immediately through our nearest agent.

# Aphine Manufacturing Co.

Manufacturers of Agricultural Chemicals MADISON, N. J.

# BON ARBOR

Awarded Diploma and Silver Medal at 1912 Royal International Exhibition, London, Eng.

BON ARBOR NO. 1 will keep your Tennis Courts and Lawns green in the hottest weather. Will grow Lettuce, Celery, Cauliflower, and anything that matures above the ground to the finest perfection. We can prove it.

Bon Arbor No. 1 is put up as follows:

Package making 15 gallons, by mail....\$0.30 Package making 30 gallons, by mail.... .55

5 lb. package making 150 gallons, exp. extra 1.80

25 lb. package making 750 gallons, exp. extra 6.25

50 lb. package making 1,500 gallons, exp. extra 12.50 100 lb. package making 3,000 gallons, exp. extra 20.00

Barrels from 250 to 300 lbs., 18c. per 1b.



RADIX WORM ERADICATOR removes worms instantly from your Tennis Courts, Golf Greens, Flower Pots, etc.

2 gallons, making 200 gallons, \$2.00 per gallon.  $1\frac{1}{2}$  gallons sufficient for Tennis Court 78 x 36 feet.

ANT DESTROYER. Rid your garden and lawn of ants. It can be done in less than a week. Per lb. 65c.; 10 lbs., 60c. per lb.; 25 lbs., 50c. per lb.

# BON ARBOR CHEMICAL CO. Paterson, N. J., U. S. A.

Write for descriptive catalogue, new 1912 edition. We manufacture also Radix Worm Eradicator, Insecticides, Weed Killer and all agricultural chemicals. Special prices on large quantities.

# Neglect did this!

Have your trees examined now. Let tree surgery save them!



## but be sure to get real tree surgery

Yet carries with respect to the first with a series of the first with a series cally tree and will problem to the first of the call trees for many to the first a constant of the first of the call trees for many to the first of the call trees for many to the first of the call trees for many to the first of the call trees for many to the first of the call trees for many to the first of the call trees for many to the first of the call trees for many to the first of the call trees for many to the first of the call trees for many 
It is Speak Davey Tree Sign and the Speak Davey Tree Sign as we organized to save the tree of the majority P. V. B. Widere of the first of the same of the first developed probability of the f

- 4m Kleinheintz, Supt

Davey Tree Surgeons





#### SOMETHING DIFFERENT

Supposing a tadical departure in the treatment of a case fifty text long, the this, does add to its cost—ton't it worth it, to secure a distinctive pleasing result like this. Of comes it is!

More and more we are being asked for "Something Different." Better and better are we able to fill the request. Our designing department is made up of bright young men filled with ideas, who in turn are under the careful direction

at mer expert in executionse e instruction. The attractive and the practical sides are consistently united.

No one in the business has a factory as extensive or as ell equipped to turn out quickly and satisfactorily any greenhouse proposition.

If you are thinking of building-let's talk it over. Say when and where and we'll be there,

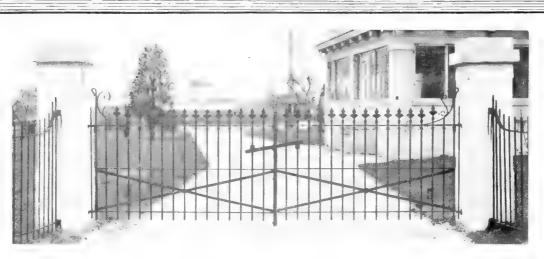
#### SALES OFFICES:

New York, 42d St. Bldg. Chicago, Rookery Bldg. Philadelphia. Franklin Bank Bldg.

Boston, Tremont Bldg. Rochester, Granite Bldg. Cleveland, Swetland Bldg. Teronto-Royal Bank Bldg.

Jord & Burnham 6.

Irvington, N. Y. Des Plaines, Ill.



# Gateways of Everlasting Lastingness

NTERPRISE

IRON WORKS

Y their very nature, parks and cemeteries are permanent. This being so, the gateways and fences should be as nearly permanent as possible. It's not sentiment—just plain every day hard sensed

If any iron gateway or fencing will last, ours will. The quality of materials is

there. The skill and care in workmanship are there. The design and construction are considered in proper relation one with the other. These are the things that give to our fencings an everlasting lastingness.

> If you are looking for such fencings, then look thoroughly into ours. Start by sending for a catalog.

2430 YANDES ST

# COLUMBIA

# Double-Disc Double-Disc

New Columbia Double-Disc Records go on sale the 20th of every month.

65 cents is the standard price—there are more than a thousand double-disc Columbia records at that price, in every class of music, dance, vocal and instrumental.

Go to your nearest Columbia dealer to-day. Ask to hear any records you like from the big Columbia Record catalog—more than 4000 to choose from—he'll be glad to play them.

Columbia Records played on the Columbia Grafonola produce that superb beauty of tone that distinguishes the Columbia as the finest musical achievement. But Columbia records will play on any machine—their richness, fidelity and true musical qualities are a tone revelation.

# Columbia Graphophone Company

Box D-494 Woolworth Building

New York City

Toronto: 365-367 Sorauren Avenue



Celambia Grate ne la "Mignemete e la maia Idiace re cora erecore ¥TTE estare correctore trat \$10 Core moree, \$17 Core moree,



# Trophies from the International Silver Company

he picture illustrates the artistic collection of Silver Cups and other trophies, awarded at the International Flower Show, recently held at the Grand Central Palace, New York.

- ¶ All of the trophies for this important event were supplied by the International Silver Company.
- ¶ Being the largest manufacturers of Silverware in the world and operating a very large number of factories, gives us a distinct advantage in originating artistic trophies, in a multitude of different designs and varieties, suited to exhibitions and contests of every sort.
- Members of trophy committees find unusual satisfaction in making their selections from this extensive and carefully assembled collection.
- ¶ Our warerooms also present an exceptionally interesting and extensive assortment of Sterling Silver Pieces and Sets for Wedding and Anniversary presents.
- ¶ Visit the International Store at your convenience and feel at liberty to view and examine the multitude of Sterling Silver Wares that is shown, without any obligation to purchase.

# International Silver Company

Succeeding The MERIDEN Co. Established 1852

49-51 West 34th St., through to 68-70 West 35th St., New York

# 

OF AMERICA

HORTICULA DIGEST



# BURNETT BROS., Chambers Street Seedsmen

Did we get your Spring order?

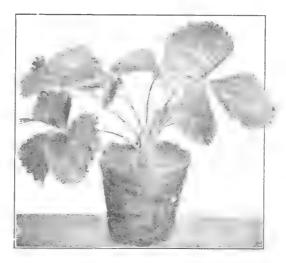
If not, why not?

Time yet for a trial order.

# Write now for list of Pot Grown Strawberry Plants

Ready June 1st

Give date of Shipment



GROWN SPECIALLY FOR OUR TRADE

Order at once

First-class Stock will be reserved

If you have any ground to stand on sow

# Burnett's Special Lawn Grass Mixture

ILLUSTRATED CATALOGUE FREE

# BURNETT BROS., Seedsmen

98 CHAMBERS STREET
BETWEEN BROADWAY AND CHURCH ST.

**NEW YORK** 

TELEPHONE 6138 BARCLAY



# DREER'S WATER LILIES

Hardy and Tropical

Largest collection in America, embracing many wonderful hybrids especially suited for growing in fountains, pools and ponds.

#### DREER'S GARDEN BOOK FOR 1915

contains the largest list of Aquatic plants offered, also beautiful illustrations of many varieties and cultural notes written by experts. Sent free if you mention this publication. We also offer the advice of our expert concerning plans for ponds and selection of varieties.

HENRY A. DREER, 714-16 Chestnut St., Philadelphia, Pa.

<del>- Больнов, вы меня лининировань в из институры в 11 в из вень институры в нинины</del> и институры в нинини

We Design and Furnish

# Plans for the Finest Landscape Work

If you are contemplating any extensive park or estate planting communicate with us on your requirements.

Our Nursery is located at Scarborough, N. Y., near the railroad station, comprising over fifty acres, and contains one of the choicest and rarest collections of shrubs and trees in the country. We have been awarded for the last three years, by the Horticultural Society of New York,

FIRST PRIZE FOR THE FINEST AND LARGEST COLLECTION OF HARDY SHRUBS AND TREES.

We will take pleasure in sending our catalogue on request.

# F. R. PIERSON COMPANY

Main Office and Post Office, Tarrytown, N. Y.
Telephone, Tarrytown 48

# TELEGRAPH

A.N PIERSON INC.

CROMWELL GARDENS

CROMWELL CONN

for

Plants to complete your plantings

Bedding Stock, Bedding Roses from 5-inch pots, Pot-grown Hardy Perennials

# Evergreen Trees

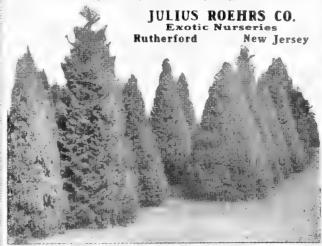
controllables to the first that the controllable to the state of the first tenth of the state of

There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

# Trees, Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs,
Greenhouse Plants and Orchids.



# The Mackensen Game Park

Fancy
Pheasants,
Peafowl,
Cranes,
Flamingos,
Storks,
Quail,
Wild Turkeys,
Deer,
Llamas,
Squirrels,
Foxes.



A GROUP OF FLAMINGOS IN MY PARK AT YARDLEY.

Ornamental
Waterfowl,
Swans,
Geese,
Ducks,
Gallinules,
Coots,
Pelicans,
and all kinds
of birds
and animals
always on hand.

WRITE TO

# WILLIAM J. MACKENSEN YARDLEY, PA.

Naturalist

WILD ANIMALS FOR ZOOLOGICAL GARDENS, PARKS, PRESERVES AND MENAGERIES

# "How can I get quick results

on that new property?"

The Meehan Summer Catalog helps the gardener solve that problem. Shows which of best hardy plants are furnished in pots—ready for late planting.

#### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65

Germantown, Phila.



Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas

4. 1. 10.0

# KENNEDY & HUNTER SEEDSMEN

SEND FOR BULB CATALOGUE

156 West 34th Street One block from New York

"ONLY THE BEST"

# Totty's Early Flowering Hardy 'Mums

We catalogue over seventy varieties of this wonderful type that will give you a continuous succession of flowers from the middle of September until late in November without the protection of a greenhouse.

Our catalogue, which describes over four hundred varieties of all types of Chrysanthemums and a full list of Novelties and Standard Roses and Carnations, will be mailed to you on request.

Charles H. Totty

Chrysanthemums—Roses—Carnations
Madison, New Jersey



# All Varieties **Thoroughly Tested**

T is the policy of Jas. Carter & Co. to thoroughly test every strain of flower or vegetable. Not until satisfactory results are shown by actual growing are they listed in the Carter Catalog.

That is why Carters Tested Seeds are so reliable and true to description.

If you have not examined the Carter Catalog— American Edition—write at once for your copy.



हैं क्षित्रसारतामा अध्यक्षक सम्बद्धातात त्राव्यक्षक सम्बद्धाता है। . र ा

CARTERS TESTED SEEDS, INC. 111 Chamber of Commerce Bldg., Boston, Mass.

Branch at Seattle, Wash, In Canada-133 King St. E., Toronto. Branch of Jas. Carter & Co., Raynes Park, England.

# Cold Storage Bulbs

We have in Cold Storage the following Bulbs for summer planting

# LILIUM FORMOSUM

Bulbs 9 to 10 and 10 to 12 inches

# LILIUM GIGANTEUM

Bulbs 9 to 10 inches.

# LILIUM SPECIOSUM MAGNIFICUM

Bulbs 9 to 11 inches.

# LILY OF THE VALLEY

Dresden and Berlin Pips.

Write for Catalogue and Prices.

# W. E. MARSHALL & CO

Seedsmen

166 West 23rd Street

New York

# RETARDED LILY BULBS

FROM COLD STORAGE

#### Lilium Speciosum Rubrum—

White ground, rose spots on each petal. Doz. 8 to 9 in. Bulbs....\$1.75 .\$12.00 .... 3.00.. 11 to 13 " 4.00

## Lilium Speciosum Melpomene Magnificum—

An improved type of Lilium Speciosum Rubrum Doz. 8 to 9 in. Bulbs. . \$1.75 \$12.00 9 to 11 " 11 to 13 " 20.00

# Lilium Speciosum Album -

Pure White reflexed petals Doz. 9 to 11 in. Bulbs....\$4.00....\$30.00

# Lilium Longiflorum Giganteum-

(Isaster Lily) 6 to 8 in. Bulbs ....\$1.50 \$10.00 8 to 9 " 9 to 11 " " ... 2.00 " ... 3.50

# Lily of the Valley-Wedding Bells

We recommend shipments at frequent intervals to keep up a continuous supply of blooms. For many customers we ship a small quantity each Monday. Per 100, \$3.00; per 1000, \$25.00.

# ARTHUR D. BODDINGTON, Seedsman 342 WEST 14th STREET, NEW YORK



the Uptown Seed Store, 40 West 28th Street, New York City, is one of the most easily reached in the city.

Forty West Twenty-Eighth Street is between Broadway and Sixth Avenue—on the south side—and is about midway between these great highways.

On Broadway we have the surface cars; on Sixth Avenue the Elevated, and McAdoo Tunnel Stations and the surface cars; the Twenty-Eighth Street surface cars pass the door. The Pennsylvania and Grand Central Stations are easily reached from this point, and the Mc-Adoo Tunnels will carry you to the Lacka-wanna, Erie, or Jersey Central Railroads.

Our Telephone Number is Madison Square. 5590. Write for our unique catalogue.

Visitors Welcome

# Harry A. Bunyard Co.

Seeds, Bulbs, Plants.

Grass Seed Specialists

# The Contents---May, 1915

Page	Page
Langley Park, Buckinghamshire, England 219	Editorial
Individuality in Garden Making	Cleveland Flower Show
The Yews	The Grower of Flowers
Making a Rock Garden	National Association of Gardeners' Notes 237
A Weeping Standard Rose	Among the Gardeners
The Butterfly Bush	American Association of Park Superintendents'
Winter Damage to Evergreens 222	Notes
Views of London Parks	Park Department Personals
Pheasant Bearing and Hatching.	The Parks of Los Angeles
By Jno. W. Talbot 224	By Laurie Davidson Cox 239
Increasing the Soil's Fertility	Selecting a Good Nursery Tree 242
Growing Rose Seedlings By John Cook 226	Women's National Agricultural and Horticultural Association
Flowers and Bulbs as Food 226	International Garden Club
Agricultural Value of Lime	State Flower Show, Columbia, Mo 243
Impressions of San Francisco Exposition.	American Dahlia Society
By Chas. H. Totty 228	-
Do Something for Our Birds	Queries and Answers
Why Do Birds Migrate?	Directory National Associations
How to Attract the Birds	Directory Local Societies
The Season of the Daffodil	Directory Garden Clubs
The Month's Work. By Henry Gibson 231	Horticultural Events
Here, There and Everywhere 232	Nassau County Horticultural Society 247
Hardy Ornamental Plants for Unfavorable City	New London Horticultural Society 247
Conditions. By L. P. Jensen 234	Westchester and Fairfield Horticultural Society 247
Prairie Plants	Connecticut Horticultural Society 248 Horticultural Society of New York 249

# GLADIOLUS - LILIUMS - SUMMER HYACINTHS

TO PLANT NOW

AMERICA—A splendid light pink. 35c. per doz., \$2.50 per 100.

BARON HULOT—Rich violet blue. 75c per doz., \$5.00 per 100.

EMPRESS OF INDIA—Rich, dark-brown red, splendid for contrasting with the variety Peace. \$1.00 per doz., \$7.00 per 100.

FLORENCE—A uniform soft lilac, with blotch

FLORENCE—A uniform soft filac, with blotch on lower petals which greatly enhances its color. \$3.50 per doz., \$28.00 per 100. MRS. FRANCIS KING—A brilliant flamingo pink, blazed with vermilion red, large flowers, borne on long spikes. 50c. per doz., \$3.50 per 100. MRS. FRANK PENDLETON—One of the most

MRS. FRANK PENDLETON—One of the most exquisitely colored and formed gladiolus; delicate flush salmon pink, three lower petals blotched rich crimson. \$3.50 per doz., \$25.00 per 100.

PEACE—A white variety with pleasing lilac feathering; large size. \$1.00 per doz.; \$7.00 per 100.

WILLY WIGMAN—Large flower of beautiful blush tint, with long, bright crimson blotch on lower petals. \$1.50 per doz., \$10.00 per 100.

# LILIUMS (Hardy)

SPECIOSUM MAGNIFICUM—This Speciosum Lily is an improvement on the varieties Rubrum, Roseum, or Melpomene. A few bulbs planted in your garden this Spring will give you a splendid Summer display. 9 to 11 inch bulbs, \$2.25 per doz., \$15.00 per 100; 11 to 13 inch bulbs, \$3.50 per doz., \$25.00 per 100.

AURATUM—The Golden Rayed Lily of Japan. Flowers pure white, thickly studded with crimson spots, while through the centre of each petal runs a golden band. May be used in similar manner to the preceding lilium. 9 to 11 inch bulbs, \$2.25 per doz., \$15.00 per 100; 11 to 13 inch bulbs, \$3.50 per doz., \$25.00 per 100.

# HYACINTHUS CANDICANS (Summer Hyacinth)

Luxuriant, free-growing summer-flowering plant; spreads 2 to 3 feet, throwing up great, tall spikes, 4 to 5 feet in height, each bearing twenty to thirty large, white, bell-shaped flowers. From our own personal trials we desire to advise our patrons against so-called "Jumbo" bulbs of this delightful plant, as this size frequently decays in the center after being planted. Choice bulbs, 10c. each, 75c. per doz., \$5 per 100.



# GARDENERS' CHRONICLE

### OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

MAY, 1915.

No. 5.

WITH TO

## Langley Park, Buckinghamshire, England

The impression which Langley Park gives the visitor is that of gardens within a garden, and although these are complete in themselves and of different styles, yet each has that family likeness which is necessary to make a homogeneous and satisfying whole. Although they are enclosed and separate, each garden—the Bamboo garden, the hardy flower garden, the Pinetum, as examples—is characterized by breadth and openness. Of the main garden features, says the Gardeners' Chronicle (London), it is difficult to say which is the most pleasing. For quiet promenade and meditation, the long grassbordered walk enclosed by formal clipped hedges from which one may pass through delightful old iron gates to the Pinetum at one end, or to the sundial garden, which contains wonderful clumps of Bamboos set boldly apart in a smooth green lawn, would undoubtedly be chosen.

The collection of Bamboos is noteworthy more for the

luxuriance of the individual clumps than for variety. Here are to be seen Arundinaria nitida, A. Simonsii, A. Hindsii, Bambusa Metaké, B. aurea striata, Phyllostachys Henonis, and P. aurea as dense, isolated masses of impenetrable greenery, fully 25 feet across, rising from cool, green, closely mown turf, contrasting with the swordlike leaves of Phormiums, and with a background of the luxuriant trees which give "Leafy Bucks" its name. From this sequestered retreat the way leads to borders of hardy and half-hardy shrubs-Camellias, Rhododendrons, Magnolias, Deutzias, Hydrangea paniculata, and many other genera—to the Japanese garden where a pool of magnificent Water Lilies is bordered by the graceful, arching plumes of Arundinaria nitida, by the mammoth leaves of Gunneras and stately Palms, amid which the purple foliage of Prunus Pissartii contrasts vividly. Standards of Magnolia grandiflora are studded



By Courtey of Girlener's Ctronicle, London.

THE LILY POND IN JAPANESE GARDEN, AT LANGLEY PARK, PUCKINGHAMSHIR - UNGLAND, THE R-SHOLNCE OF SIR ROBERT HARVEY, BART.

with large fragrant blossoms, which perfume the air throughout the long summer's day, and beside them are equally large examples of such spring-flowering species as Magnolia obovata and M. conspicua. Here is to be seen the original Davidia involucrata, which Messrs. James Veitch received from China, growing in a native This specimen, when it opened a solitary flower in 1911 at the Coombe Wood Nursery, was the first to flower in this country. Purchased by Sir Robert at the sale last autumn, it was planted out in the Japanese garden, where it flowered during last spring, and now appears to be thoroughly established. During the early summer, from an immense specimen of Wistaria multijuga hang racemes of lilac flowers well over two feet long. On another wall Wistaria brachybotrys bears many pods of Runner-Beanline fruits. In another enclosure Crinodendron Hookerianum was fruiting, and the flower buds, already prominent and tipped with red, promise a good display for next year. The upper growths of Solanum jasminoides were hidden by the clusters of white flowers, and a large and very old example of Tecoma (Bignonia) radicans bore many trusses of rich reddish-orange trumpet-shaped flowers. Pomegranates, Magnolias, both grandiflora and conspicua, and many other climbing shrubs, clothed the outer walls of the museum. Beside numbers of the hybrid Rhododendrons many of the species and varieties which are associated with the mildest districts of our islands seem to be perfectly happy in the warm and sheltered enclosures. Of these Rhododendrons Falconeri, Griffithianum, Thompsonianum, Gill's Triumph, and Gill's Goliath may be mentioned.

The herbaceous borders are a comparatively new feature, and have been greatly extended under the supervision of the young and enthusiastic gardener, Mr. W. Willcocks, who has had charge of the fine gardens during the past few years.

#### INDIVIDUALITY IN GARDEN MAKING.

In general, garden making may be classed as either formal or informal. In the formal design of gardens, nature is made to fit some plan as conceived by man; in informal arrangements the plan is made to fit into the existing natural features. With this simple distinction *Billerica* reviews gardens as they have been built.

It says the formal gardens of the past have become models for the larger gardens of today. They first reached a high state in Italy and are known as Italian gardens, although as famous ones are found in France, England, and other European countries, and there are not a few in America. The gardens of Versailles in particular show the most costly and extensive development of this style of gardening. . . .

The old-fashioned gardens of our grandmothers were essentially formal in character, whether on the scale of that at Mt. Vernon, or the little front yards in old Salem or elsewhere. They were of a simple geometrical arrangement, with walks for easy access, from which to view attractive parterres full of flowers, with seats and shelters for comfort and convenience. Something of the spirit of simplicity of these old gardens is entering again into the smaller gardens of today, along with an appreciation of the simple types of flowers that were there grown.

Some of America's gardens have been designed by architects in close connection with the home structures. In such gardens architectural features often dominate, the vegetation being merely an ornamental accessory. The topiary garden, in which the principal features are trees cut to formal or erratic shades, as shown at Levens Hall in England, is also represented at the Hunnewell

estate at Wellesley, Mass. The area so treated varies from a small enclosed court to some large area near buildings, enclosed by walls and hedges. Here the strictly formal and the more informal may meet, as many American gardens witness.

Another style of gardening known as "carpet bedding," a geometrical arrangement of plants, at one time exceedingly popular, is now confined to a few public parks and

to a very limited number of private estates.

The natural or informal style of gardening began as a revolt against excessive formality. Today the greater part of our garden operation is the result of modern modifications of the principles of gardening as first inaugurated in the great private parks of England.

From a desire to allow the works of nature to predominate in garden operations, the next stage was an ambition to imitate in planting the arrangements of nature so that even the hand of man would be concealed. This idea of "wild gardening" was often carried to extremes, particularly in England, where this kind of gardening first found wide favor.

In England, too, was evolved the idea of the "hardy border," the grouping of hardy perennials in a natural way, modified by the conditions about our homes. A great many estates of large size, as well as small lots, have found this method, adapted to our ways of living, the best solution for the arrangement of their gardens.

Gardens that are particularly influenced by the existing features of the ground surface, as rock gardens, water gardens, etc., are more recent phases of natural gardening. They depend upon their fidelity to nature in fitness to their site, and in the details of their arrangement, for their beauty. . . .

The gardens of Japan are not natural gardens in the usual sense; nor are they formal gardens as usually defined. They differ from all western gardens in that they represent by certain symbolic type forms the natural landscape features of Japan. By their very nature they are not suited to be boldly copied in other countries, but the principles by which they are builded are of universal application, and are finding their way into the American gardens of today.

Special gardens, that may be either formally or informally treated, are now common. We have many seasonal gardens, as a spring or early fall garden, gardens devoted to special colors, and gardens for particular kinds of plants, as rose or iris gardens. These are destined to be seen more and more as the garden art becomes more intensive.

There need be no monotony of arrangement in the gardens of any region. Examples enough have we of what is truly artistic and expressive that no one need copy his neighbor, . . .

#### THE YEWS.

Yews are propagated by seeds which do not germinate until the second year, but seedlings invariably grow faster than plants raised from cuttings.

Cuttings can be rooted very readily in a cool green-house or frame, but do not have the same freedom of growth and so do not develop into as fine specimens, their growth is more likely to be low and spreading. Varieties grafted on seedlings even make better headway than cuttings.

As the seeds take so long to germinate it is better to gather them when ripe and put them in a heap when the fleshy covering will rot away, then mix them with fine sifted sand and bury them in the ground about 6 inches deep, where they may remain until the time for sowing.

The Yew is a very ancient form of vegetation and really belongs to past geological ages. The present forms are very broadly dispersed over the north temperate zone.

Taxus baccata, English Yew, is indigenous through Europe to northern India. There are numerous garden varieties, including the well-known Irish Yew.

Taxus canadensis, Canadian Yew, is the American representative of this family.

Taxus Cuspidata, the Japanese.

In addition to these there is a Florida one, Taxus floridana and one from Mexico, Taxus globosa.

Botanists are of the opinion they are all geographical

varieties of one species that through the ages have adapted themselves to the conditions under which they are growing.

The yews thrive in almost any soil and are wonderfully tenacious of life when once established, endure shade well and so make admirable plants for small city yards.

Unfortunately, they are not particularly hardy and suffor from dry frosty winds in winter, especially when exposed to the winter sun, so that it is better to protect them in much the same way as the Rhododendrons require; in fact, Rhododendrons and vews thrive under about the same conditions. As far as hardiness is concerned, the Canadian Yew is considered the hardiest, but a writer in National Nurseryman says he has seen them winter kill when the Japanese and English came through unharmed.

#### MAKING A ROCK GARDEN.

The pleasure of building a rock garden is interestingly described by a contributor to the Gardeners' Magazine (British). The many varieties of plants, with their wide-Iv different habits, make the work a most fascinating one. Careful study of the suitable environments of the various rockery plants is necessary for success. Some of them thrive best behind sheltered boulders out of the reach of the sun's scorching rays; some where they can flaunt themselves on the driest and warmest slope, while others must be planted nearly perpendicularly in order to prevent the moisture lodging in their hearts and rotting the plants. He says it is possible in a rock garden, or a rockery, to produce something in bloom from Januarywhen Saxifraga Burseriana uplifts its brave little head to face the wintry blast-to mid-December, when a stray bloom of Primula capitata may glow deeply purple, its stem and calvx white powdered, like the snowflakes falling softly around it.

But May, June and July are the heyday of alpines: then color and scent are alike rampant, and the rock garden a dream of fairy-like beauty. Campanulas tumble over the gray stones like shimmering waterfalls, and Dianthuses give off their warm, luscious fragrance. Aubrietias, mauve and purple serve as a background to show up the golden stars of the St. John's Wort, while the silvery edelweiss, and sky-blue Gentians and Primulas, myriad-hued, from every clime, complete a group whose

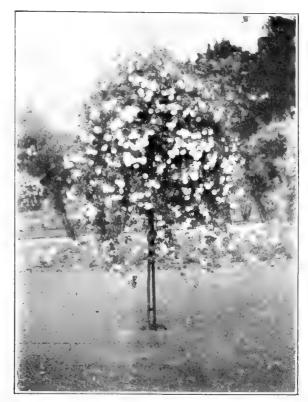
brilliance is well-nigh dazzling.

One of the greatest arguments in favor of a rock garden is its wonderful faculty for "coming up smiling" under the most untoward circumstances. A night of rain and storm has laid low the herbaceous border, but no sooner does the sun shine out again than rock Primulas, creeping Antirrhinums, and Avens and Mimulus, St. John's Worts, Sedums and Saxifrages, Androsaces and Lithospermums are glowing and scintillating in all their prismatic colors, unruffled and unharmed. Other advantages are that alpines need no tedious tying up, no ugly sticks to support them, and for anyone who has only a small garden, and not much time to work in it, rock plants yield the best return in point of effect and interest.

Another thing to be remarked is that alpines are not naturally delicate, although it is worth while to humor, even to pamper them, until the tiny plants are firmly established. A pane of glass is often very efficacious in a damp winter, and we always dress the plants with some leaf-mold in autumn, and put sand round their crowns. Under this treatment, more as a preventive than a necessity, even Primula Winteri, accustomed to the rare, clear atmosphere of the high Himalavas, flourishes and blooms in profusion.

#### A WEEPING STANDARD ROSE.

Such perfect specimens of weeping standard roses as the one here figured are not, we venture to say, of very frequent occurrence. This particular plant is the wellknown Dorothy Perkins, budded upon a brier stock at a height of 6 feet from the ground. The total height of the



SPECIMEN WEEPING STANDARD ROSE, DOROTHY PURKINS,

specimen was 9 feet, and the diameter 4 feet 6 inches, so that it forms a beautifully symmetrical oval. When photographed there were several growths 12 feet long. Such vigor is only possible when the tree has all that its nature demands. Every chance was given it from the first, for before planting took place, a hole was dug 3 feet by 5 feet, 9 inches of broken bricks were placed at the bottom and fresh turfs, with the grass side downward, were laid over these. A good mixture of clayey loam was then filled in, chopped up roughly with decayed cow and horse manure, also a fair proportion of burned earth and vegetable matter.

> Send Your Subscription, \$1.50 a Year, to CHRONICLE PRESS, Inc. 286 Fifth Ave., New York

#### THE BUTTERFLY BUSH.

It is doubtful whether any new shrub ever distributed in this country offered so much to all classes of garden makers as *Buddleia variabilis*, writes E. I. Farrington, in *Country Gentleman*. It is coming to be generally known as the butterfly bush, because of the remarkable attraction which it has for butterflies of all kinds and colors. Not only is it very hardy and extremely easy to grow, but if set out the last of April or the first of May it will be blooming early in August of the same year, even in New England, and it will not cease to bloom until cut down by the frost.

The plant was discovered in the wilds of Western China, but it thrives in the soil and climate of the United States. Sometimes it is called the summer lilac, for the flowers somewhat resemble those of the lilac in form. They are borne closely on long spikes or stems and are mostly a light heliotrope in color. Every branch bears a flower spike, and if the blossoms are cut constantly with as long stems as possible new branches will continue to appear, with new spikes of bloom, as long as the season lasts.

Then, if the whole plant is cut down to within 8 or 10 inches of the ground in the spring, a host of new branches will grow in a very short time and there will be a wealth of flowers—and of butterflies. Quite apart from its own merits as a flowering shrub, buddleia is worth growing for the great number of these beautiful creatures that it woos to the garden. Sometimes scores may be counted on a single bush at one time.

In spite of their rather peculiar shape the flowers of the butterfly bush lend themselves well to house decoration, particularly by daylight. They keep several days in water if they are put in a fairly cool place and are not crowded in a vase.

Though buddleias are an attractive addition to the border planting, they are most effective when massed in beds. They grow from 4 to 6 feet high, like sun for at least half the day, and need an abundance of water if they are to give the best results.

Flowering as freely as they do, too, they prefer rather rich soil. In the Northern States it is a wise precaution to heap up soil round the lower part of the plants in the fall, in the same manner that roses are protected from the severity of winter cold.

#### WINTER DAMAGE TO EVERGREENS.

Many reports are coming to hand of considerable damage done to evergreens, especially rhododendrons and other broad-leaved varieties, during the past winter, which has resulted in the killing of many of these plants. E. H. Wilson, writing in Horticulture, says: the winter has been an extraordinary mild one, it cannot reasonably be claimed that low temperature has been the cause. The bright sunshine during the closing days of February and through March combined with the total absence of precipitation, must, I am convinced, be held responsible. . . This applies forcibly to broad-leaved evergreens. The bright sunlight in March causes This applies forcibly to broadrapid transpiration (i. e., loss of water from the leaves) and the ground being still frozen the roots are perforce inactive and cannot make good this loss and the cells of the leaves collapse. The effect is the same as if the plants had been submitted to a fierce scorching blast.'

In the same publication W. N. Craig says: The summer and fall of 1914 were abnormally dry. The roots of all plants, unless they had been watered or mulched, were dry when the ground froze up. We got copious rains in February, but this did not reach the roots of plants which were not well mulched. The bright and

arid conditions in March and a large part of April would not have been so serious had the roots of evergreens been moist.

While it will probably be admitted that the foreging reasons will account for the heavy losses, why is it that some half-hardy sorts are not harmed at all, and that while plants of one particular sort are dead, others side by side under precisely similar conditions are harmed little if at all? No doubt we must look back further than 1914 for "the beginning of the end."

I have in mind at this moment a collection of splendid rhododendrons, some fifteen feet high, located at Pawtucket, R. l., which came through the winter in perfect condition; also beds of these noble specimens at Waltham, Mass., which never looked better. At Faulkner Farm, amongst some hundreds of rhododendrons we had not a single death, and merely occasional small branches killed. On all these estates the plants were kept well mulched and were well soaked last fall.

I believe there is less in the location than in providing these broad-leaved evergreens plenty of mulch and moisture. Windbreaks for these and the newly planted evergreens are also I believe more necessary and important than overhead covering. The latter is more harmful than helpful.

T. D. Hatfield expresses his views on the subject, saying: The past winter has not been severe as regards cold. We have had winters with much lower temperature, with less damage to report. I have no doubt, as Mr. G. H. Wilson says, that "winter damage to rhododendrons" is due to excessive sunlight during the late winter months. Plants in the full sun suffered most, and the damage was greatest in front of windbreaks and least where the wind had full sweep—as if the wind had tempered the sun's rays.

We do not like to say we neglect any of our rhododendrons in the matter of water in summer and covering in winter, but we have to admit that our neglected beds suffered least. One bed, "high and dry," on a bank, with little water and hardly any leaf covering, came through in first rate condition, and it has always.

Some notable gardeners of my acquaintance declare that winter covering is a "delusion and a snare." In some respects our experience during this later winter seems to support this contention. Certain it is that our young stock rhododendrons and kalmias in the vegetable garden were badly hit. I can't believe they could have suffered more if no protection at all had been given. About fifty per cent, are dead or badly injured, but when one sees among these half a dozen plants together as bright as if there had been no winter at all and all around them plants dead, one is hard put to for an explanation, or even a theory. This sort of thing we find throughout all our beds-plants standing, so to say, alone untouched. All these plants were well watered right up to the time they were covered for the winter, so as to make sure they did not go into the winter dry.

I am convinced, however, that evergreens which go into the winter dry do suffer in just such weather as we had this past March. It is almost an axiom that evergreens must be root active in winter.

A gardener joining the police force, received instructions, on going out on his beat, to bring in any "porch climbers" he may find. The following morning the station presented the appearance of a nursery shed, for the neighborhood had been stripped of its vines.

#### VIEWS OF LONDON PARKS.

We have been able to procure views of two features in the London (Eng.) parks-one showing an avenue in Regent's Park, on either side of which, though not shown in the photograph, there are broad open spaces of lawn with flower beds. Large vases on tall pedestals are another notable addition here. These are filled with Geraniums, Fuchsias, Salvias and such like in conical masses. Placed as they are they are very effective.

The other scene is typical of a bright day in Hyde Park, London, beneath the umbrageous Elm trees of Rotten Row. Though laboring under such a curious name, said to be a corruption of route du roi or king's way, this avenue is one of London's most fashionable. Great banks of Rhododendrons are massed on either side a little way back, while the flower bedding, the water



ROTTLY ROW, HYDE PARK LONDON.



AVENUL IN REGENT'S PARK, LONDON

gardens, the dingle where the wild rabbits disport in peace and quietness, yet in view of the people, together with the smooth lawns, the bandstand and other amenities combine to make this one of the most frequented and beautiful park resorts of the great English metropolis.

#### A BEAUTIFUL WATER GARDEN.

The picture accompanying these notes is of the water garden at the Pleasaunce, Overstrand, one of the finest and best kept of the gardens of England. The situation is a choice one, embosomed amid trees on the windward sides but open to the south and southwest. A great diversity of trees, shrubs, Roses and climbing vines are used around the sinuous pools of water and a fine selection of Water Lilies, Irises, Juncus, Senecio, Clivorum, Ly-



### Advertisers

Please note that advertising forms now close on the first day of the month of publication. Your cooperation, through getting copy in promptly, will enable us to get the Chronicle out on the

tenth day of each month.



WATER GARD, NOVE HELE SAUNCE, OVERSOR VALUE OF A SALE

# Ornamental Fowl for Parks and Gardens

A MONTHLY TREATISE ON THEIR CULTURE.

#### PHEASANTS REARING AND HATCHING.

By JNO. W. Talbot, Indiana.

Any one who can raise chickens can raise pheasants. The one is no more difficult than the other. General information as to the beauty of plumage, delicacy of flesh, history, etc., of Chinese pheasants can be found in encyclopaedias and books without number. Therefore, I will devote this article to a practical statement of the actual procedure that I believe best for the hatching and rearing of these birds. In captivity the Chinese pheasant does not usually set or nest. It lays wherever it may happen to be, usually about sundown and consequently at that time it is best to avoid disturbing the pheasant hen unnecessarily. The eggs should be gathered frequently and not permitted to lay around the pheasant yard, because this bird at times is tempted to eat its own eggs if they remain before it too long.

For hatching the eggs the best results are obtained by using Bantam hens. Set your hens on the ground. Make a small depression in the ground and use sod or cut straw or hay for nesting material. When possible place the nest under bushes, under brush or other cover. The eggs of different pheasants require different lengths of time for hatching. For instances the Ring-neck 24 days, Silver 27. Golden 21, Reeves 25 and Amherst 22. The eggs should be moistened from time to time just as one

would moisten the eggs of chickens.

Do not disturb the young chicks for 24 hours after they are hatched and unless the weather is very warm, do not give them any water until they are a week old. The first food for young pheasants may be hard boiled eggs and they should not be fed until they are 24 hours old, after which the boiled eggs can be grated for them through a piece of wire window screen and they should be fed four times a day, or every three hours, being careful to only feed them as much as they will clean up. Too much care cannot be taken to prevent over-feeding. It must always be kept in mind that the pheasant is a light eater and naturally a wild bird and requires only from one-tenth to one-twentieth part the amount of feed that a chicken should be fed. Instead of boiled eggs the first food of the young may be made up of hard boiled eggs and potatoes, both being thoroughly boiled in the same kettle until the potatoes are soft, when the volk of the egg will crumble. It is well to use only the volk. Pare the potatoes and mash them, using two parts of potatoes to ione of egg. Use the same food the next day and the day after. You may then add a few leaves of lettuce, onion tops or millet. Keep plenty of green food before them. Feed in this manner for a few days until strong enough to run about. You may still continue feeding them in the same way if you wish, but after they are ready to run about, if it suits your convenience, you may scald thick sour milk until the whey and curd separate, then strain and use the dry curd, mixed with equal parts of ground hemp and canary seed, about four parts of curd to one of seed with a very little pepper added. should be staple food until they are six weeks old. Another good food is wheat bred moistened with sweet milk and mixed with baked potatoes. Scalded corn-meal, cracked wheat or corn, hemp and canary seed whole, ripe tomatoes, or any food used for little chicks will answer as they grow older. Never give pepper grass (sorrel) to pheasants. It is unhealthy for them.

The pheasant naturally is very strong in flight. Con-

fining pheasants was first accomplished by covering the pens or yards with wire netting, but the expense of that method was so great, that pheasant raisers have abandoned it and instead of doing that many simply clipped one wing of its feathers to prevent flying, but the best and most successful raisers of these birds take a very sharp shears when the bird is about four days old, prepare a good sized saucer filled with boracic acid or powdered calomel or even wood ashes, and take each chick when between four days and a week old and clip off one wing at the first joint, immediately dipping the raw end of the wing into the powder and turning the bird loose. This is called pinioning. It has no injurious effect on the birds, they recover at once and it prevents their flying thereafter more than three or four feet in height and permits them to be confined in a garden or yard surrounded by a wire netting fence. Birds raised to be turned loose for stocking purposes should not be pinioned for it prevents them escaping from their natural enemies.

During the breeding season the male pheasants are very jealous and inclined to fight. With them fighting is no unimportant matter. They frequently fight until one or the other is killed and occasionally until both are so injured that they are thereafter of no value. On that account as the breeding season approaches, the hens should be separated and placed in the pens where they are to lay and the males that are to be kept with any hens should also be separated, not more than one male being permitted in one pen. Those males that are not permitted to run

with hens, may be allowed to be together.

Perhaps the most remarkable thing to the person previously unacquainted with pheasants and their habits is the fact that they will not live indoors as do chickens and other domestic fowl. Therefore, their houses should be made with walls on the east, west and north sides and with a roof, but the south side should be uncovered and open except that if one sees fit, the south side may be covered half way down with old window sash with the glass in them and plenty of perches should be placed in the house. To avoid rains and disagreeable winds, the birds will seek the house in daylight, but it is indeed very rarely that they will be found in the house at night. In the most inclement weather mine have slept out on the tops of snow banks. In the winter season of the year a feeding patch for them, if possible, should be made beneath undergrowth, or should be kept swept clean where they can come for feed.

Great care should be taken to avoid mites and lice with pheasants, whether young or old, and particularly with the young, and where it is deemed necessary they should be greased. The pheasant seems to be fairly free from disease, but occasionally a hard scaly substance like a wart or a corn grown on the legs, making the bird lame. Where that is found a little olive oil rubbed on them will cause them to fall off in a short time. If a pheasant should develop a cold, be very careful not to give it water,

except at long intervals.

These birds are insect exterminators. That constitutes a very large part of their food and as a consequence they are very beneficial in the garden. They do not dig up a garden like hens. Any person contemplating raising these birds should not be fearful that it is a difficult task or that he will not be successful. We have much better results with our pheasants than with any other fowl that we raise. In handling the pheasants, they should be caught with a scap net, for the reason that their legs are

very long and very liable to breakage and the chances are altogether too great of breaking their legs to make it wise to catch them in the hands or in any other way than with such a net.

The Ring Neck pheasant attains its fully plumage during its first year at from five to seven months. The female lays from 50 to 120 eggs per season. The eggs hatch in 24 days. The birds breed the spring following the year in which they are hatched, and one male will mate with from one to six hens. The Amherst attains full plumage in its second year, lays 30 to 40 eggs per season, breeds the first year if the young hen is mated with a two-yearold male. They mate one male with from one to three hens and the eggs hatch in 22 days. The Reeves attains its full plumage the first year, lays 35 to 40 eggs per season, breeds the second year, mates one male to not exceeding three heus and the eggs hatch in 25 days. The Golden gains its full plumage the second year, the eggs hatch in 21 days, it lays 25 to 35 eggs per season, and breeds the first year if an old male is mated with young hens. It mates one male to not exceeding five hens. The Silver attains its full plumage in the second year, lays 45 to 50 eggs per season, breeds the second year and mates in pairs. The eggs hatch in 27 days.

#### INCREASING THE SOIL'S FERTILITY.

Probably no subject connected with the field, farm or garden has been more written about or less definitely settled than that of soil enrichment, or "manuring," writes F. F. Rockwell in The Field. In a broad sense, anything added to the soil to increase its fertility may be termed a manure. While there are several different classes of such materials, the lines between them cannot be sharply and distinctly drawn, and the result is confusion of thought on the whole subject. To get the matter down to any practical basis for discussion, however, we must make distinctions, although they may be more or less arbitrary. The first general classification to make is that of organic in contradistinction to inorganic manures; that is, the animal or barnyard manures and green manures, as differentiated from chemical fertilizers. Here, however, we at once see the difficulty of making a hard and fast line, as manufactured organic manures, such as the slaughter-house products of ground bone, bone black, tankage, dried blood and so forth, in practical work are handled and applied with the chemical fertilizers, such as nitrate and potash salts and rock phosphates.

Omitting all questions of "why" and "how," which the scientists are still fighting out among themselves, the following principles are well enough established to have already served as a foundation for successful

soil improvement.

First—That plants derive their nourishment from the so-called plant-food elements in the soil. (The legumes being a partial exception, as through nitrogen gathering bacteria upon their roots, they have the capacity of deriving a large amount of nitrogen from the air.)

Second—That these plant-food elements must be in certain chemical conditions or combinations before the plant roots can absorb them, or before they are "available," as it is termed. And until these elements are converted by the chemical action constantly going on in the soil into available forms, they are of no more use to the plant than a cocoanut would be to a starving shipwrecked sailor if he were unable to break the shell.

Third—That by intelligent cultivation we can

hasten this process of converting unavailable plant food into available forms. This may be accomplished by maintaining proper conditions of air and moisture in the soil, through under-draining and surface cultivation to counteract the extremes of wet and dry weather; by improving the mechanical condition of the soil by breaking the soil particles up as fine as possible, and by adding chemical and bacteriological agents, such as lime and various classes of bacteria which take a direct and active part in preparing the raw plant food for the table to be set for the plants' feeding rootlets.

Fourth—That soils that have been under cultivation for a considerable time are likely to become depleted in one or more of the following elements: Nitrogen, phosphoric acid, potassium (or potash), and sometimes calcium (or lime). That when any one of these becomes deficient, the plant growth becomes checked and a superabundance of any of the other elements cannot make up for the shortage; but by adding to the soil these various elements, in the proportion needed, we can directly feed the plant.

With these principles fixed firmly in mind, we have a foundation upon which to go ahead and lay out a system of maintaining and increasing the fertility of our fields by making the best use of each of the several materials which are available for that purpose.

The most generally used of these available classes of material, which I have already briefly mentioned, are the several kinds of animal manures.

A hundred pounds of a high-grade, complete fertilizer contains more actual, available plant food than a ton of average manure; but you would go a long way to find any practical farmer or gardener who would prefer the former instead of the latter if he could have either delivered to him on the field at the same price. Some of the soil scientists of the last generation considered that this was merely prejudice on the part of the practical grower, whom they considered not ready to follow the lead of science. As a matter of fact, however-as is not infrequently the case-it was the practical man rather than the scientist who was in the lead. Because manure is valuable not only as a carrier of plant food, but also as a source of bacteriological action, a means of improving the physical condition of the soil, and for supplying humus, or the spongelike, water-absorbing vegetable matter which helped to maintain the supply of soil moisture. Without moisture all growth must cease, even in the richest soil. This water-holding humus is necessary to carry crops through a season's periods of deficient rainfall.

Our aim in handling animal manures should be to treat them in such a way that the plant foods which they contain are saved and converted in the most available forms possible, that bacteriological action will be promoted, and that the physical condition of the manure will be made such that it can be handled readily and will be of benefit to the physical condition of the soil. In addition to this, of course, it should be handled by a system involving the least possible trouble and expense. The best system of handling it, in any particular case, will depend upon how it is to be used and what kind it is. Manure that is allowed to ferment loses a great deal in bulk—in the case of ordinary mixed yard manure usually about one-half—and also usually about one-half of the nitrogen and potassium, and one-fourth of the phosphoric acid which it contains when fresh. If in addition to this it is exposed to the weather, still greater losses take place. as not only are the natural liquids lost, but a great

deal of the valuable elements of the more solid portions of it are washed out. The use of acid phosphate, ground phosphate rock, or gypsum, added to the manure as it is made, at the rate of forty pounds or more to each ton of manure, greatly reduces the loss of plant-food elements where the manure has to be kept some time before being used.

#### GROWING ROSE SEEDLINGS.\*

By John Cook, Maryland.

I will not go back to the history of the rose, as that will take too long. The magnitude of rose growing as compared to twenty-five or thirty years ago is surprising. All the Tea Roses at that time were lacking in color. Therefore, we used some of the hybrid perpetual roses as pollen bearers (they being richer in color). Through this operation we succeeded in getting deeper colors—reds and deep pinks.

Hybridizing is the art of bringing together individual flowers or plants of different species. Cross breeding effects similar results with individuals of the same species.

Growing rose seedlings is a very slow business. It takes five months to ripen the seed pod, a month to rot the hip and from five to twelve months for the seed to come up. These seedlings are very much subject to mildew, and some die in their infancy. Fifty per cent. of the seeds will not germinate, twenty-five per cent. will come single, and out of the remaining you might obtain two or three varieties worth growing.

By crossing them we call them Hybrid Teas.

In 1888 I raised the first hybrid tea seedling raised in the United States. It was a cross between Bon Selene and Louis Van Houte, which was in great demand for a number of years. (This was a red rose.) I named it "Souvenir of Wooten," after the country seat of George W. Childs, in Philadelphia, where he entertained the Society of American Florists so handsomely.

My next seedling was a beautiful pink rose, which I named "Mrs. Robert Garrett." This rose had a weak stem and was discarded for a commercial rose, but it is good for outdoors and can be found in the catalogues of Europe and this country. "Enchantress" was another shell pink rose grown to some extent under glass.

Then came Marion Dingee, a red bedding rose. (The entire stock of this rose was sold to Dingee and Conard,

who named it after their daughter.)

Then came Cardinal, a beautiful red rose, crossed with Liberty, and an unnamed seedling. This rose proved

one of the best hardy roses.

In 1908 I introduced Radiance, a rose pink with a silver lining to the petals. This is a seedling from Cardinal crossed with an unnamed pink seedling. This rose received a silver medal at the Hartford Test Gardens, and this, in my opinion, is the very best of all the Hybrid Tea Roses for out of doors. The demand for this rose is increasing every year. At the same time I introduced my Maryland, a salmon pink rose. This is one of the best commercial roses, as well as a hardy outdoor rose, a very profuse bloomer.

In 1914 I introduced Panama, a delicate tinted rose, with large petals, a very profuse bloomer, one of the best bedding roses. This also received a silver medal at the Hartford trial grounds in competition with French, Eng-

lish and American roses.

The last rose I sent out in 1914 is a beautiful red rose which I named "Francis Scott Key," after the author of the Star Spangled Banner, a seedling from Cardinal and an unnamed red seedling. This is the best built rose in cultivation. It has sixty petals.

I have raised thousands of seedlings, but the most of them were wanting, either in the production of flowers or hardiness. They were all given a trial out of doors, and most of them were killed by hard winters and therefore I did not propagate them to send out.

To have fine roses in the open ground it takes well rotted cow manure. It is the very best of all manures for roses. Dig the soil out about twenty inches deep, get some well rooted sod and mix it with one-quarter well rotted manure. This will give splendid results in the size as well as profusion of bloomers. Give them a top dressing of fine bone in July. This will carry them through the season.

There is something new and interesting to learn about rose growing every day. The care required is constant, and the old adage "Eternal Vigilance is the Price of Success" is perhaps more true of rose culture than of any

other branch of the grower's art.

#### FLOWERS AND BULBS AS FOOD.

Not long after the outbreak of the European war there was printed in the newspapers a dispatch to the effect that in Holland, whose industries were greatly crippled, many people were grinding tulip buds into flour and making bread from it.

Many people thought it a most unusual thing. As a matter of fact, most people have no idea how many blossoms, leaves, stalks, roots and bulbs of our flowering plants make good, wholesome and often really delicious food, writes E. L. Freking in *Vegetable Grower*.

Sweet pea blossoms make a good salad. The flowers have the base cut away, but not enough to cause the flower to fall apart. The blossoms may be combined with any delicate salad greens, or with fresh young pea sprouts, that is, pea shoots that are about two or three inches above the ground. These are delicious, and when used with the pea blossoms, make a very unusual salad.

The tiny flowers of the sweet alyssum make a tempting salad. The flavor of the flowers resembles that of turnips. They may be used with nuts and salad

greens.

Another favorite for salads in old-fashioned gardens is the gillyflower or stock. This flower belongs to the mustard family and both foliage and flowers are used in the making of salads. The leaves are strong and are best when chopped with nuts. They mingle well with peanuts and pecans. The flowers should be chopped.

The blossoms of the althea, or rose of Sharon, make a sweat, delicate salad. They are somewhat like holly-

hock blossoms, but sweeter.

The chrysanthemum is used more than any other flower in Japan in the making of salads. The petals are pulled from the flower and chopped with nuts and mixed with honey and oil and served either with or without salad greens. The petals have a peculiar flavor and make an excellent tonic, being slightly bitter.

The blossoms of all ornamental flowering beans make excellent material for salads. The scarlet runners, the wistaria bean and the hyacinth served steamed or stewed. To the northward, Oregon Indians make bread and porridge of the seed of a yellow flowered crucifer, which they grind into meal.

The wild lettuce blossom is more attractive to the palate than to the eye, but together with its young leaves it forms a pleasing and nutritious bean are all common to our gardens, and make a showy salad. They are sometimes mixed with nasturtium flowers

Verbena blossoms pulled whole from the flower head and served on nasturtium leaves with pecan nuts.

<sup>\*</sup>Paper read before Women's Nat'l Agric, & Hort, Conf. (See page 243.)

makes a most graceful and beautiful salad and have a very delicate flavor.

The blossoms of the red clover are used as salad. The tiny flowers are plucked from the blossom head and used by themselves with a salad dressing or with some of the clover leaves which have a sharp, peppery taste and are strongly nitrogenous and therefore excellent for the health.

In Florida the flowers of the banana plant are now being utilized as a food and they are also gathered and dried to use further north.

Alfalfa and dandelion flowers are in high favor as food. The alfalfa flowers are excellent for the health as they are so rich in organic salts. The alfalfa plant strikes its roots very deeply into the subsoil and brings up into the flower the richest supply of mineral elements, iron, sodium, potassium, sulphur and calcium. The flowers are also excellent for nervous troubles.

The tubers of flowers are cooked and made into very attractive dishes. For example, there is the small tuber of the tuberous nasturtium, which is very delicious either cooked or raw, and has a spicy flavor somewhat like a radish. The small bulbs may be eaten served like radishes or cooked in a variety of tempting ways, boiled saute, curried, fried or baked.

The tuber or bulb of the dahlia has been for some little time a favorite vegetable. These bulbs are delicious and may also be eaten either cooked or raw. For salad, sliced raw, they have a very agreeable taste, and cooked they furnish a novel and delectable dish.

The hollvhock is one of the flowers that serves for both raw and cooked dishes. It is of the mallow family and has "cheeses" as the seed cups are called when young. These cheeses are very rich and nutty in flavor and may be eaten raw as a salad or cooked and eaten with butter or cream sauce. The flowers of the hollyhock are used for salads and they are filled with natural salts. One may make a salad of the tender leaves, the seed buds and the petals of this flower. To make a hollyhock salad, gather the newly blown flowers and a number of the small seed cups. Strip the petals from the flowers and arrange them on a plate with the inside part of the seed cups scattered over them and serve with a French dressing. The flowers are dried in the Orient and make a very palatable food in winter, as the flavor is particularly delicious when the dried petals are moistened by chewing.

Marigolds make a pungent and tempting flower salad. The petals are pulled from the stems and chopped with flaked nuts and dressed with any favorite form of dressing. One with honey in it is particularly good. To make this salad select the largest flowers and mash them. Then strip off the deep gold petals, add half a cupful of chopped or flaked nuts of any kind to mix well together. Place in the center of a salad dish and garnish the edge with the whole flowers. A more beautiful dish would be hard to find. For the honey dressing use two parts olive oil, one part lemon juice and one quart clear strained honey, beat well together and add at the last the stiffly white of an egg. Salt to taste.

Pansy salad is excellent from a health point of view, for the pansy is a very wholesome herb. The flavor is like that of wintergreen. Both the foliage and flowers are used.

A very rich and succulent salad is made from white water lilies. The petals are pulled from the flower head and chopped. They are usually combined with grated nuts such as almonds or pignolias, and a salad dressing used with honey and oil, as described above, in it. A single perfect water lily blossom may be placed in the center of the dish of salad as it comes to the table.

#### THE AGRICULTURAL VALUE OF LIME.

In a report recently issued by the United States Geological Survey on the source, manufacture and use of lime, some very interesting and educational data is given on the use of lime as a fertilizer which embody the views on this subject of a number of our

most prominent agriculturists.

The report dealing with the subject of agricultural lime states that the use of lime as a fertilizer dates from the inception of modern scientific farming. Agricultural chemists have shown that there are five or six different functions which lime may perform to benefit a soil, which may be summarized briefly as follows: 1—It is an essential element of plant food. 2—It aids in the conversion of decaying organic matter into humus. 3 -It forms compounds with the humic acids which tend to prevent their being leached out of the soil and lost. 4—By producing proper sanitary conditions the growth of injurious bacteria is largely prevented, while the growth of nitrifying bacteria is encouraged. These nitrifying bacteria convert the nitrogen of the humus into a form such that it is available as a plant food. 5-Lime aids in the liberation of potash and phosphorus from inert compounds. 6—It tends to flocculate clay soils, rendering them granular and more porous.

Obviously, permanent results can not be expected unless care is taken to insure the presence of some organic fertilizer at all times. Lime used alone may be temporarily beneficial, but will eventually be harmful; when used with cowpea vines it becomes more efficient for general purposes than almost any other fertilizer. Of course, lime is not beneficial to all crops to

the same extent, and not all soils need lime.

Thus some of the common plants which are stated by this report to be benefited by lime are spinach, lettuce, beet, celery, onion, cucumber, cantaloupe, asparagus, cabbage, peanut, rhubarb, pea, pumpkin, bean, tobacco, alfalfa, clover, barley, wheat, oats, timothy, gooseberry, currant, orange, quince, and cherry. Indian corn is only slightly benefited. Plants which are said to be slightly injured by lime are cotton, tomato, cowpea, concord grape, peach, apple, and pear, and those really injured are radish, flax, blackberry, black raspberry and cranberry. Whether a soil will respond to liming or not depends on the amount of available calcium oxide which it already contains. Unfortunately chemical analysis does not distinguish between the total calcium oxide and that which is available to plants. Probably the best indication of the need of lime is the failure to obtain a good crop of

Statement of the ownership, management, circulation, etc., required by the Act of August 24, 1912, of THE GARDENERS' CHRONICLE OF AMERICA, published morthly at New York, N. Y., too April 1, 1915, Editor, M. C. Lib, J. Madison, N. J.; m. a.g. et of ton, M. C. Lib, J. M. Jison, N. J.; m. a.g. et of ton, M. C. Lib, J. M. Jison, N. J.; m. a.g. et of ton, M. C. Lib, J. M. Jisher, The Chronicle Press, Inc., 286 Fifth avenue, New York, N. Y. Owners (If a corporation, give its name and the names and address of stockholders holding 1 per cent, or more of total amount of stock. If not a corporation, give names and address of individual owners.): The Chronicle Press, Inc., 286 Fifth avenue, New York, N. Y.; M. C. Ebel, Madison, N. L.; Geo, A. Burniston, Madison, N. L.; M. E. Burniston, Jersey City, N. L.; L. A. Burniston, Jersey City, N. J. Known bondholders, mortgagees, and other security holders, holding 1 per cent, or more of total amount of bonds, mortgages, or other securities (If there are rope, so state.): There are no bondholders, mortgagees or other security holders.

other security holders.

her security holders.

GUO A RURNISTON, Rubble March, 1915.

Sworn to and subscribed before me this L2th day of March, 1915.

(Seal.)

F. IRVING MORROW, Notary Public, (My commission expires June 21, 1915.)

### IMPRESSIONS OF THE SAN FRANCISCO EXPOSITION.

By Chas. H. Totty, New Jersey.

The Exposition is in full swing, and it goes without saving that all the predictions of its sponsors are being carried out. It is a dream of beauty, and it seems hard to believe that two years ago much of the ground was a mud hole. The exhibits are in place, and there is an air of completeness about the exposition that has been lacking about some other similar affairs. The visitor will not dream as he looks about the grounds that all the beautiful scheme of acacias, eucalyptus, evpress and palms have been moved in boxes, and in fact are still growing in the boxes, forming as they do beautiful settings for the buildings. The Exposition is an artistic triumph, the beautifully tinted buildings conforming to a color scheme of subdued yellow, green and gray to brick red, and the landscape effects are arranged to harmonize with the rest of the picture. The Darwin tulips, which are just through blooming, were glorious—particularly in the Holland section.

At the present time the color note is yellow with millions of pansies and violas in bloom. This effect will be offset later by Begonia and other plants, and when the horticultural visitors arrive in August they will be charmed with the various and beautiful effects of the plans employed.

The hedges and the walls of Mesembryanthemum spectabile are one of the principal features of the horitcultural effects. This wall in many cases is over thirty feet in height, and when the sun is shining the effect of the open flowers is wonderful—at other times the dark restful green of the foliage blends with the color scheme.

The general effect on the visitors to this exposition is a restful one. There is not discordant clash of color, no aggressive glare. I noted some splendid sweet peas being grown in the Morse gardens which are not yet in flower.

The Massachusetts garden is getting into good shape, the Iris being very good and the Buddleias showing exceptional promise for the future. The Japanese exhibit is magnificent—it is hard to beat.

The new roses in competition for the thousand dollar prize are as yet in poor condition, although another rose exhibit in the California garden, by the Gill Nursery Company, shows the wonderful possibilities of this section as a rose growing center. Irish Elegance and Maman Cochet being wonderfully fine, their yellow flowers showing up with telling effect.

The placing of the large plants around the buildings is most artistically done, and the landscape effects as a whole have set a standard that future exhibitions will find hard to surpass.

The Avenue of Palms is composed of Phoenix Canadiensis, and while a wind storm of a few days ago has browned some of the leaves, we are assured that they will soon come back in this California climate. The stems of the palms are covered with Nasturtium to relieve the bareness and, lulled by the harmony of the whole ensemble, eliminate every discordant shade of color. Only varieties were used that would conform to the color scheme, even the midway concessions having to conform to the color scheme of the Exposition.

The rhododendrons and iris are just passing out of flower, and, as can be imagined, have contributed wonderfully by their brilliant coloring. The garden effects of the Japanese Commission, which are numerous and beautiful, are supplemented by large exhibits from Yokohama Nursery Company.

The visitor from the east is surprised at the cheapness of the cost of living in San Francisco, a fine room, with bath, being obtainable most everywhere for three dollars a day; and the prices of food range from thirty to fifty per cent, lower than in the east, particularly so in the case of fruit. The lower cost of living while here will offset the cost of the traveling expenses to a very great extent, and every gardener who misses this opportunity of seeing how great our country is, enjoying himself at the same time, and participating in the greatest event in the history of expositions will ever after regret it.

The San Francisco florists and horticulturists, with their proverbial hospitality, beg me to assure your readers that "the latch string is out," and they look for the greatest crowd of horticultural enthusiasts that ever got together. I could write for a week on the horticultural features of this state, but it would not convey anything to a man unless he had once seen the vegetation here, and I can only repeat: Come and see for yourself.

The illustration herewith shows the Aphine Mfg. Co.'s International Panama-Pacific Exposition silver and bronze bowling trophy to be awarded to the member of the Society of American Florists, National Association of Gar-



deners or American Association of Park Superintendents: making the highest individual score in the contest which will be held under the auspices of the Pacific Coast Horticultural Society, in San Francisco, the third week of August next, when the meetings of all the named organizations will occur in that city.

### Our Native Birds

This department is under the direction of the Committee on Bird Protection, National Association of Gardeners.

#### DO SOMETHING FOR OUR BIRDS.

BY ROBERT WHILLAMSON, CONNECTICUL.

Now is the time that all lovers of birds can do something to attract them to their grounds by planting various shrubs and trees or otherwise contributing to their protection and feeding next winter. The writer has for a number of years been quite an enthusiast on planting trees and shrubs for berry effect in autumn and hence unintentionally attracted many birds about the grounds and on more than one occasion regretted their depredations on some of our choicest plantings. The past year or two, however, he has experienced a change of heart towards our feathered friends and has come to look upon them more kindly as he realized the amount of work the birds do for us in destroying insect pests. It we can in time encourage enough birds to do the work which we are compelled to do each year in spraying our orchards and gardens, we will be doing our share to bring about a horticulturist's millennium. It has been computed that the annual damage from insects in the United States alone amounts to eight hundred million dollars. A statement which no doubt is true when one takes into consideration the amount of money spent in fighting pests as well as the actual damage done to crops.

A recent writer in the GARDENERS' CHRONICLE under the heading "Bird Protection and Its Scope" named a list of what to plant in the line of trees and shrubs to attract the birds which if carried out will work wonders in a very

iew years,

Protect your cultivated blackberries and raspberries by planting mulberries in the neighborhood of your fruit garden, for the birds prefer the mulberry. Every garden should also have a corner planted with a few sunflowers for many birds will feed on them in the fall.

Do not neglect to have a patch in some out of the way place planted with buckwheat, and you will find next fall and winter that patch will be a rendezvous for many a flock of quail as well as other birds, especially if this is done on large estates. If the winter is severe be sure to erect some shelter made out of corn stalks convenient to the buskwheat patch and when deep snow covers the ground be sure to place some buckwheat where the quail

can get it.

The common American crow is one of the greatest enemies of our smaller and interesting birds and while the writer admits that the crow in his way is a great help in destroying myriads of grubs in the field, it is, however, impossible to raise any kind of water fowl, quail or any birds which nest on the ground in a locality where crows abound, as they have a ravenous appetite for eggs. A good way "to fix" them is to feed them with eggs, taking the unfertile hens' eggs that have been tested out of an incubator, puncture a small hole in them, insert a small quantity of strychnine, stir it into the yolk and place the eggs where the crows are likely to find them—and they will soon "go home to roost."

#### WHY DO BIRDS MIGRATE?

Although North American birds living in the colder part of the continent return South for the winter, there is no similar movement of birds from the colder to the warmer parts of South America, according to a bulletin of the United States Department of Agriculture. If the birds in North America did not go South during the

winter, they would perish. Also if the birds remained in the South later than spring, there would be over-crowding; so they are drawn northward again by the enormous summer supply of bird food. In South America, on the contrary, there are almost no migratory land birds, because the South temperate latitudes, on account of their small area, offer no such inducements to the feathered inhabitants of the limitless forests along the Amazon.

There are some who argue that love of birthplace is the impulse which causes spring migration, and these call attention to the seeming impatience of the earliest arrivals. Ducks and geese push northward with the beginnings of open water so early, so far, and so fast that many are caught by late storms and wander disconsolately over frozen ponds and rivers, preferring to risk starvation rather than to retreat. The purple martins often arrive at their nesting boxes so prematurely that the cozy home becomes a tomb if a sleet storm sweeps their winged food from the air. The bluebird's cheery warble we welcome as a barbinger of spring, often only to find later a lifeless body in some shed or outbuilding where the bird sought shelter rather than to return to the sunny land so recently left.

As a matter of fact, however, only a small percentage of birds exhibit these preseasonal migration propensities. The great majority remain in the security of their winter homes until spring is so far advanced that the journey can be made easily and with comparatively slight danger; and they reach the nesting spot when a food supply is assured and all the conditions of weather and vegetation are favorable for beginning immediately the rearing of a family.

It may be safely stated that the weather in the winter home has nothing to do with starting birds on the spring migration, except in the case of a few. There is no appreciable change in temperature to warn the hundred or more species of our birds which visit South America in winter that it is time to migrate. It must be a force from within, a physiological change, warning them of the approach of the breeding season, that impels them to spread their wings for the long flight.

#### HOW TO ATTRACT THE BIRDS.

If you wish to attract the birds, the most important thing is to give them an abundance of water for bathing and drinking. Where water is not naturally abundant, shallow receptacles should be placed in suitable places for their accommodation, and the water should be changed daily.

These receptacles may take the form of an ornamental fountain, or may consist of shallow basins made of concrete, or pans of tin or galvanized iron. The water should not be more than 2 inches deep at any place; a thin stone may be laid in the pan to vary the depth.

Combined with suitable planting arrangement, such a little basin may be made an ornamental feature of the garden. Do not place the basin too close to shrubbery masses, where the cat may find a hiding place, as the birds are easily caught when wet. Exterminate every cat which makes a habit of killing birds.

Get in touch with the activities for bird protection in their respective States. Let us make the department on bird protection a live one.—L. P. Jensen, Missouri.

## The Season of the Daffodil

By The Onlooker.

A young lady to whom I spoke of the newer Daffodils seemed immensely surprised to learn that a single bulb of the particular variety we were examining cost five dollars. Her incredulity was not disguised; and it appeared to me that she thought the person who would pay five dollars for a tiny mite of a bulb was a fit subject for the mad house. She herself would assuredly buy a new hat—if \$5 would go so far as pay for her hat. And when she had it it would be cast aside in a few months, done with. My bulb, however, with luck and care, ought not only yield me two more equally good, and keep on adding to my stock year after year, while all the while supplying the daintiest, loveliest of flowers.

Too many gardeners and amateurs only know the common Daffodil, so frequently and erroneously called Jonquil. How often do we stop to consider that there are at least 200 excellent, distinct, and desirable varieties of Daffodils? These are all classified into groups and sections. Few flowers afford more interesting study. There are twelve sections, and the differences between these sections are based on the form of the flowers. Everybody knows the Paperwhite Narcissus, with small white flowers in bunches. Also we all know the Poet's Narcissus (N. poeticus) or Pheasant's-eye. Thirdly, everyone knows the true trumpet Daffodils of the Spring, the commonest and earliest being the old double yellow one, and almost in line with it the plebeian single trumpet kinds. These give us the key to how the classification runs. The genus or family used to be divided into:

1. Trumpet selfs; 2. Trumpet bicolors; 3. Poeticus; 4 Tazetta; 5. Incomparabilis; 6. Species.

But the crossbreeders and hybridizers have been at

But the crossbreeders and hybridizers have been at work for a long time and have considerably mixed up the original types; nevertheless the specialists who follow the work of the crossbreeders from year to year can usually "spot" the family characteristics that have been bred into the novelties. Herein is where so large a part of the interest and fun of the study of Daffodils lies. "Yes, I can plainly see the Johnstonii in that," one will say, "the trumpet shows me that." Or it may be a cyclamineus hybrid and bears the stamp of that species in the reflexing of its petals.

Well, these are crude enough examples, of course, but they serve to drive home the point. Both Johnstonii and cyclamineus are distinctive Narcissi; they have strongly marked characteristics. It is when we get down to the finer points that even the keenest experts have to get their thinking caps on and may not always guess at the correct parentage.

#### WORK OF THE HYBRIDIST.

What has this hybridization given us? This is a large question. It has given us noble white Daffodils where formerly frail-looking specific forms existed. It has given us much enlarged and finer varieties of N. poeticus. It has given us beautiful combinations of the Jonquil and true Daffodil. Hybridization has also resulted in the splendid new poetaz group, these being the outcome of crossing N. poeticus with the Tazetta or polyanthus (bunch) Daffodils, hence the name poet-az. Today we also have white Narcissi with the loveliest and daintiest green centers; and among the very latest are new, pink petalled seedlings.

An explanation of some of the terms used by Daffodil people seems in order here. First, then, all these flowers—Daffodils, Jonquils, Paperwhites—are members of one genus, the genus Narcissus. The name somehow or other comes down from ancient times and was the name of a youth of Greek mythology who admired his

own image reflected in the water, so ardently that Nemesis turned him into the flower that bears his name. The two terms, Daffodil and Narcissus, are used interchangeably, although some authorities aver that the term Daffodil must only be applied to those Narcissi that have long trumpets, or true trumpet Daffodils. Those with trumpets of half length, as in the well-known Sir Watkin, are also universally classed among the Daffodils, but here the line is often drawn and all other groups are simply called Narcissi. (The terminal "i" simply signifies the plural of the word Narcissus.) Familiarly N. poeticus is spoken of as Poet's Narciss, or Narcissus; the breeders and growers even speak of them simply as "Poets." Thus the experienced ones talk of Leedsii, Barrii, Engleheartii, for short, thus getting the variety down to its own proper group right away. Or if they don't wish to be quite so exact they will speak of "red caps," a term that needs no explanation from anyone; or of "chalice-cups," which means the Leedsii group.

#### DAFFODIL TERMS.

I have used the term petals as being best understood by the majority of flower lovers, but the Daffodil specialist calls these "perianth segments." It is a botanical point, but well worth adopting. Then the cup of the smaller type is properly or strictly the corona (crown); while the centre of the Poet's Narciss is the disc. The trade terms are therefore—perianth, trumpet, crown or corona, disc,

eve (the centremost part of flat flowers).

Whether the conditions for the highest cultivation of the Daffodil exist in any large part of the United States is an open question. I am inclined to think that, generally speaking, the sections where they succeed really well are limited to Oregon, Washington, parts of Michigan, northern Massachusetts and Maine. At the same time good vigorous varieties can be depended upon, if given reasonable care, in all sections north and east of Virginia, including that state. Plant early in October and cover the beds with a couple of inches of flaky manure after the first sharp frost. Choose a sunny, protected position for the finer varieties, such as in a border close to one's residence or between greenhouses, or having the protection of a wall on the north side, and if the soil is rich, well drained, and the bulbs sound when planted, excellent results can be expected. But while no stagnant water ought to lie about, remember that Daffodils enjoy a cool moist roothold.

Among the best kinds for planting in open woods or in glades or out among the shrubs in a holt or half wild shrubbery are these:

Telamonius plenus.
Von Sion.
Orange Phoenix.
Sulphur Phoenix.
Poeticus.

Incomparabilis Sir Watkin. Emperor. Empress. Frank Miles. Stella superba.

That is not a very long list, and could doubtless be added to easily enough. Among others for beds and for select places in the garden I would choose the following:

King Alfred.
Emperor and Empress.
Barri Conspicuus:
C. J. Backhouse.
Golden Spur.
Lucifer.
Gloria Mundi.
Beauty.
Duchess of Westminster.

Sir Watkin.
Victoria.
Mme. de Graaff.
White Lady.
Henry Irving.
Bernardino.
Blackwell.
Albatross.
Mrs. Langtry.

## The Month's Work—For June

Conducted by Henry Gibson, New York.

THE FLOWER GARDEN.

There is a good deal of routine work in this department at this season of the year. The early flowering perennials are furnishing fine material for cutting and by far the best results are obtained where the plants are relieved of the strain of carrying a heavy crop of flowers. When the supply of flowers exceeds the demand for cut flower purposes, the flower stems should be removed as soon as they show signs of fading. Freshen up the surface soil about the plants at frequent intervals, thereby checking the growth of weeds, and conserving the moisture in the soil.

Maintain a trim and neat appearance about the beds and borders by keeping the grass edges clipped regularly. As the early flowering bulbs, such as tulips, daffodils, etc., that are planted in the perennial garden pass out of flower and the foliage ripens, the space they occupy may be planted up with annuals. Planting out of bedding stock should also be pushed.

#### ROSES

Established roses are promising exceedingly well this year, and we look forward to seeing some fine exhibits at the spring shows. Where extra large blooms are wanted disbudding must be resorted to. Insect pests are sure to prove troublesome, and every effort should be made to keep them under control. Eternal vigilance is the price of freedom from bugs, flies, thrips, mildew, etc. If the plants can be regularly and thoroughly sprayed with a good force of water, very little poison or other chemicals will be required.

During cold, damp periods mildew is apt to be prevalent, but a good spraying with fungine, which is made up largely of sulphurated potash, is recommended for mildew. Liberal application of water during dry spells and frequent doses of liquid cow manure, not too strong, will greatly improve the quality of roses intended for the exhibition table.

#### SWEET PEAS.

Here again we have a subject that requires special attention in the way of suitable liquid feeding, and an important point to remember in feeding is not to give strong stimulants when the roots are dry. Give a good soaking of clean water and then use the manure. Cow manure mixed with soot is particularly good, though any kind of animal manure or commercial fertilizers can be used.

#### DAHLIAS.

Dormant tubers of dablias may be planted out any time now, but where late frosts are prevalent it would be well to delay the plantings of young green plants, that have been raised from seed or rooted cuttings, until all danger of frost is past.

#### PRUNING SHRUBS.

The early flowering shrubs require to be pruned as soon as they are through blooming. All spring blooming shrubs flower on wood make the previous year, and it is with the object of making provision for strong, clean, healthy growth that pruning should be done. This consists of cutting away as much of the old wood as is compatible the symmetrical development of the plants.

Among the shrubs that can be so dealt with at this season are almonds, lilacs, forthysias, spireas, snow-balls, etc.

THE VEGETABLE GARDEN.

Cultivating the early planted crops, giving support to peas and planting for succession will occupy the greater part of the vegetable gardener's time during this month. Potatoes will need to be earthed up and a sharp lookout kept for the potato beetle. Arsenate of lead or paris green are effective remedies. Late celery will need transplanting. Brussel sprouts and leeks should be planted. Egg plants, peppers, tomatoes, melons, cucumbers, etc., that have been hardening off in a frame may be set out.

Melons and cucumbers that were started early should be exposed to air all night, so as to gradually inure them to outside conditions. Hills should be prepared for these plants. We like to dig out a circular hole about three feet in diameter and two feet deep. In the bottom leaf soil and old manure is put to the depth of 15 inches and then the top soil replowed.

Cutworms are very partial to young melons, squash and cucumbers and a sharp lookout should be kept for them.

#### THE FRUIT GARDEN.

Small fruits will do better with a mulch applied this month. Early runners of strawberries should be prepared. Grape vines will require tying and disbudding and the summer pruning of fruit trees should not be overlooked. Many trees that are now unfruitful may be made to develop fruit spurs by judicious pinching of the young growth during the summer. The old idea of root pruning as being the only method of attaining this end is being exploded. Root pruning is a laborious operation at the best, and as practically the same object is attained by the simpler and pleasanter method of summer pruning it should not be overlooked.

Spraying of all kinds of fruit trees should be attended to. These notes are too brief to go into the details of each and every trouble that one has, to spray for, on the different kinds of trees. It is always good practice to look to these things at the proper time. Little good is done by adopting methods of control once the currant worm has defoliated the currant bushes. Black rot and mildew have become chronic on the grapes. Blister mite, canker worms, codling moth, black knot, leafspot and various other ills have ravaged the trees and young fruits.

#### THE GREENHOUSES.—ROSES.

The planting operations should be pushed ahead as fast as possible. When the old soil has been emptied out and the benches washed down with the hose, follow up with the white-wash while the bench is still wet. It is really surprising how much easeir it is. Four inches of soil is sufficient depth to plant roses in, and see to it that the coarser pieces of the sod go to the bottom next the straw or other material that is used to keep the drainage from clogging. Firm the soil well next the sides of the benches so as to avoid having holes left when the soil settles.

When setting the plants out in the bench previous to planting select the smallest for the front rows, the next largest in the second row and so on.

#### CHRYSANTHEMUM.

Getting the plants into their flowering pots is the chief work among these subjects at this season. Many of the earliest propagated ones have filled four-inch pots with roots, and the sooner they have a shift the better for their future welfare. Give ample drainage, use clean pots, a good compost and pot firmly.

#### HERE, THERE AND EVERYWHERE

#### PEDIGREE TREES AND PLANTS.

Among the catalogues that come to hand with the new year we find as usual, certain nurseries that make claims for better plants or trees, because they have been propagated from those of their kind which have shown the greatest and best fruiting capacity. Such claims appear very plausible to many readers and great trades have been worked up on the strength of them, but from the very first they have been condemned both by science and experience itself where the latter has been impartial. Nothing is more likely than that the buyer of nursery stock, who pays an extra price for supposedly better plants, should give them uncommonly good care, and to this extra care may be traced what he considers a confirmation of his belief. Had he planted ordinary sorts by the side of this so-called pedigree stock and given them exactly the same treatment, he would have discovered his error.

The plausibility of this claim made for pedigreed plants is derived from the analogy between vegetable and animal life that many of us are prone to assume; what holds true of livestock must therefore hold true of nursery stock. But when we look closer it is plain to see that there is no analogy at all, and that the cases are entirely different. Animals are improved by crossing or inbreeding and thereby securing new offspring that always differ in more or less degree from both parents. The pedigreed plants, on which we are asked to set a higher value, are merely replicas or duplications of the parent stock from which they are derived by means of coins, cuttings, layers or buds. In every case the young plant is merely a part taken from the body of a parent and therefore presents the same characteristics. The analogy to animal breeding in the plant world would be seed planting, but this wo do not do, because we should never get the same type but infinite variations, most of which would be inferior to their progenitors. The variations that we often think we have discovered in a variety are attributable to natural causes which we do not perceive.

At great intervals of time an arbitrary change in character, known as bud variation, may take place, due to we know not what. One of the best examples of this is the Pan-American strawberry, that was spontaneously produced by nature and was of a totally distinct type. It was found growing among ordinary plants and became the parent of all the fall or everbearing kinds that have since been originated. Thus nature was able to do at a stroke what man might never have been able to evolve through, scientific methods.—L. J. Johnson, in Market Grovers.

#### BE TENDER AND KIND TO PLANTS.

Botanists, plant pathologists and agronomists who follow the narrow and sometimes lonely paths of pure science may not be interested in Dr. Jagades Chuder Bose's "frictionless needle." a delicate instrument by means of which he determines whether plants are said or glad. Non-scientists, however, are likely to be thrilled by it.

According to Dr. Bose you may hurt the feelings of a plant just as you may hurt the feelings of a sensitive woman or child. You may bore plants and flowers by your dull presence or you may jolly them up by your sprightly manner. Be kind and charming to them and they will respond in kind. Be harsh, cruel and matter of fact and they will droop and die.

The discovery of the Hindu physicist is new only in that it pretends to analyze scientifically what has long been proclaimed as subtly inspired insight. Botanists with imagination have written voluminously for ages about the sensitiveness of plants and their seeming affection for those who tend them with loving kindness. Plant pathologists retort that plants respond to intelligent care that provides adequate nourishment and sunlight, wards off diseases and annihilates pests and parasites.—Country Gentl man.

#### HENRY RYECROFT'S GARDEN.

In among the chapters of introspection, imagining and careful loving dissertations on nature and some books, which form George Gissing's "The Private Papers of Henry Ryecroft." is to be found that individual's view of what a garden should be. The owner of "the plain little house" in Devon was a puzzle to his gardener because he resisted that "honest fellow's" attempts to "lay out flower beds in the usual way, and make the bit of ground in front of the house really neat and ornamental." What Henry Ryecroft liked in his garden were "quite old-fashioned roses, sunflowers, hollyhocks, lilies and so on, and these I like," he stated in his papers "to see growing as much as possible as if they were wild. Trim and symmetrical beds were my abhorrence,

and most of the flowers which are put into them." "But on the other hand," he says, "a garden is a garden, and I would not try to introduce into it the flowers which are my solace in lanes and fields. Foxgloves, for instance—it would pain me to see them thus transplanted. I think of foxgloves, for it is the moment of their glory. Yesterday I went to the lane which I visit every year at this time, the deep, rutty, cart-track, descending between banks covered with giant fronds of the polypodium, and overhung with wych-elm and hazel, to that cool, grassy nook where the noble flowers hang on stems all but my own height. Nowhere have I seen finer foxgloves. I suppose they rejoice me so because of early memories—to a child it is the most impressive of wild flowers. I would walk miles any day to see a fine cluster, as I would to see the shining of purple loosestrife by the water edge, or water lilies floiting upon the still depth."

Besides the old-fashioned flowers of his half wild garden, there are birds, and these are mentioned in one of his notes. He says, "All about my garden today the birds are loud. To say that the air is filled with their song gives no idea of the ceaseless piping, whistling, trilling, which at moments rings to heaven in a triumphant unison, a wild accord. Now and then I notice one of the smaller songsters who seems to strain his throat in a madly joyous endeavor to outcarol all the rest."—Monitor.

#### THE YEARLY COST OF GOLF.

We noticed recently the statement that golf costs Americans \$50,000,000 annually, an expenditure that represents 5 per cent, interest upon a billion dollars. It seems quite impossible that so much money could be expended upon one game alone. Yet figuring conservatively this estimate comes very near being right. It does not refer, of course, to what has already been expended in the purchase of land, the construction of courses and clubhouses which represent a probable investment to date of over \$100,000,000.

If we say that there are 2,000 golf clubs in the United States having an average playing membership of 200, which gives a total of 400,000 golfers, and allow an average of \$20 a day to each club in caddie fees, an expenditure of \$20 by each player a year upon clubs and balls, club dues averaging \$35, and labor \$3,000 per club, we arrive at a total of \$42,600,000. If there is added to this the purchase of seed, fertilizers and implements and other odds and ends the total will come very near to \$50,000,000.

#### CHINESE TREES DO WELL IN EASTERN NORTH AMERICA.

That the climate of eastern China is similar to that of eastern North America seems to be the reason for the success which has attended the introduction of many Chinese plants into this country; at least this is the opinion in the United States Department of Agriculture's Office of Foreign Seed and Plant Introduction. In a new publication of this office which lists seeds and plants imported during the fall of 1912 a definite report is given on the growth of 79 different importations from China, most of which may be termed successful. Plant introductions from foreign countries are distributed by the office until sufficient time has elapsed to give some indication of their possibilities in this country.

A maple which grows 70 feet high, whose leaves turn a golden yellow in autumn, is one of the ornamental trees introduced from China of which something may be expected. A Chinese elm particularly adapted for dry sections for wind-break purposes has proven very satisfactory and will be more generally introduced. A pine tree and a Chinese butternut also have grown well here. It is hoped that these all may prove as ornamental and useful as the gingko tree.

#### PROPOSED QUARANTINE FOR CHESTNUT BARK DISEASE.

The chestnut bark disease has become so serious that in the opinion of the United States department of Agriculture, it is desirable to quarantine New England, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, Ohio, North Carolina, Iowa and Nebraska, or such portions thereof as may be found to be essential. A public hearing on this question will be held in Washington at 10 o'clock on May 18. The proposed quarantine will restrict the movement from this territory of chestnut nursery stock and chestnut lumber with the bark on.

The chestnut bark disease is comparatively recent in this country. It is caused by a fungus which rapidly kills the native chestnut trees and is spread chiefly by the distribution of nursery stock. Once it has been established, however, it is spread locally by wind, birds, and insects. Migratory birds may also carry the disease for long distances.

At the present time the native chestnut grows in practically all of the territory east of the Mississippi except a section of the coastal plain of the Southern States, the northern half of Maine. and parts of Illinois and Michigan. For two years after the tree has been killed by the lungus the timber remains valuable, but deterioration sets in after that time.

#### INTELLIGENCE IN TREES.

It you watch a tree closely and study its habits your are surprised at its shrewdness in searching out its sustenance. It is almost as cuming as a rat in finding out good food and plenty of drink. I have even a cottonwood green and fresh in the dryest part of a dry summer have leaves of deepest green, putting out at the same time a vigorous growth, while a little beyond and all around were trees and shrubs badly wilted and suffering with the terrible heat.

What made the tree so fresh and vigorous? Two hundred feet away was a cistern, the tree found it out, sent its roots plowing through the hard earth to that cistern. It was a large one—had never failed before and the people wondered what became of the water. On examination it was found that the roots had gone down outside the brick and pushed their way through the cement and had carried the water 200 feet up to that tree. And the tree seemed to be crowing like a triumphant rooster over its victory.

Here is another illustration. I had a row of apple trees which of course are throwing out their roots for sustenance in every direction. Some distance from the row I had occasion to dig a trench and fill it with manure well mixed with earth for a row of pieplant. A year or two after I had occasion to dig out the trees and to my amazement I found those roots once headed in another direction had turned, some going under the trees and some beside them, the whole root system intent on getting to that trench. That was wonderful and shows a degree of intelligence worthy of the animal kingdom. What instinct guides that great army of foragers in their quest for food? Who told them of that trench that they made such haste to reach it? Thinking of these things you can almost claim relationship and clasping an out-reaching limb give it a good hearty shake, and say "How do you do my brother?" Liebange.

#### STEREOCHEMISTRY.

We are often at a loss to explain the behavior of certain plants. but if the theories of those scientists interested in stereochemistry are correct some at least may be explained by the molecular structure of their parts. Only three or four chemical elements are found in the majority of plant substances. For instance, such widely differing substances as starch and sugar, vinegar and alcohol, wood and oil, mucilage and wax, are composed of carbon, hydrogen and oxygen in varying amounts. Still more remarkable, it is known that the sugars, though made of exactly the same amounts of these elements, are very different in their effects and in their reactions with other substances. These differences are now believed to be due, not to different amounts of the elements composing them, but to the different way in which these elements may be arranged in the molecule. Miescher has estimated that the serum globule molecule may exist in a thousand million forms. Of the twelve known forms of glucose, only dextro forms (that is, those which rotate a beam of polarized light to the right), are fermentable or capable of being used by certain low organisms for food. In other substances the dextro forms may be untouched and other forms used. It thus appears that the structure of the molecule is of immense importance in the reaction of the organism or its parts and this may explain why one substance is poisonous when another exactly like it in composition is not, or why a substance may poison one organism and not another closely allied to it. By this theory may be explained the reason why the pollen grains of one plant will not germinate on the stigma of a related flower and why other plants more distantly related can be crossed with it. It depends largely upon the structure of the molecules of their protoplasm. Stereochemistry opens an inviting field for speculation and its further advances will doubtless be fertile in results. The American Rutanist

#### ENGLISH WALNUTS IN PENNSYLVANIA.

The English walnut is attracting wide interest in Pennsylvania as a commercial orchard tree. Scarcely a week goes by at the Pennsylvania State College without receiving inquiries concerning this nut. These inquiries are usually prompted by the fact that already within the State are bearing trees which have proved both their hardiness and their ability to bear abundant crops of nuts equal or superior to the nuts found in our Eastern markets, which are imported from the Old World, California or Oregon, the principal sources of our commercial supply.

Because of the interest manifested, the Department of Horticulture of the college has planned a thorough investigation of the subject. This will begin with a survey of the State to determine the location of all trees. In order to make this survey as complete as possible, the Department urgently requests the assistance of every one who can give facts concerning such trees, especially as to location, character of nuts, age of trees, hardiness, etc. Owners of nut trees are urgently requested to correspond with the college. It is hoped that this information will be sent in to the Department without delay, so that the trees may be visited by the investigators and fuller notes and observations made.

Whoever is growing such trees is invited to write to F. N. Fagan at State College, Pennsylvania, giving information both as to the trees and to the property upon which they are located,

#### GROWING WATERCRESS.

Anyone who has a constant supply, however small, of running water may grow watercress. A space larger or smaller, according to area at command, should be excavated so that under ordinary conditions the bottom may be covered with from 2 to 3 in, of water; but it is advisable to permit of cleaning the beds from time to time, to have some means of temporarily diverting or cutting off the water supply. The soil should consist of a very sandy loam or of tine gravel. Propagation is usually accomplished by division of the old roots or by sowing of seed. The best times for planting are in spring and the early fall. Plant the rows in the flow of the stream, not across it. Seed may be sown in pans of light soil in a greenhouse or frame, keeping it moist, and pricking the plants out into the beds when large enough to handle. Watercress may also be grown in any constantly-moist and shady spot in the garden, and in winter it may be obtained from pans or boxes kept in the greenhouse, giving plenty of water at all times. - Canadian Horticulturist.

#### MAKING A WHITE PINE BUSHY.

Everyone familiar with evergreens knows the habit of growth of the White Pine, Pinus Strobus, when in its favorite soil, a deep moist, but well drained one. It then makes a long, central shoot, each year's growth crowned with a tier of branches, with wide spaces between each tier. It makes height quickly and for this and its soft, silvery needles it has long maintained a place among the evergreens largely planted.

While many will say they want no improvement on its natural habit of growth, there can be no denial of the fact that a pruned, bushy White Pine is one of the loveliest of evergreens. It is then a specimen unlike any other in collections. It is true that the Himalayan has silvery foliage, but it is a more robust grower, easily distinguished from the White Pine.

There are two ways of making a White Pine bushy. One may leave the central shoot untouched, forming bushiness by nipping out the leaders of all side branches in early Spring, just as they are about to burst into growth. The other way is to top the leader in Spring as well as the side branches, looking to the formation of a bush-shape rather than that of a tall tree.—Exchange.

#### USE FOR WATER HYACINTH.

Consul Lawrence P. Briggs, who is stationed at Saigon, Cochin China, tells of some interesting experiments toward the commercial employment of water hyacinth.

"During the last four or five years" he says, "experiments have

"During the last four or five years" he says, "experiments have been carried on in the southern part of French Indo-China for the purpose of turning to some profit the water hyacinth, which incumbers the lower Mekong and other waters of Cochin China and Cambodia to such a degree that it has become a positive menace to navigation. The most extensive and successful of these experiments have been conducted in the Central Prison at Pnompelin, Cambodia, under the supervision of the director, M. Perrot. Hore the fibre produced by this plant has been used in the manufacture of rope, twine, matting, paddy sacks, boxes, and chairs, sofas, cradles and other articles of furniture. It has been mixed with silk to form a somewhat stiff but durable cloth,

"As soon as the plant is gathered it is stripped of its leaves and passed through a fibre crusher until the fibre is completely separated from the pulp. The fibre is then gradually dried in the shade. When carefully treated it is strong, flexible and elastic. Rope, textiles and furniture made of it, when treated with carbolineum, become impervious to the ravages of the weather or of the white ants and insects, so damaging to furniture in this locality. Tests show that a twine of this fibre having a diameter of 0.19685 of an inch and a length of 3.28 feet, will support a weight of 108.02 pounds, with a consequent prolongation of 3.937 inches."

Mr. Briggs also tells that hyacinth briquets equal coal as fuel. They can be marketed at about \$6, gold, per ton.

#### POSITION WANTED.

On private farm or estate by carpenter, married,  $3\frac{1}{2}$  years in last position, A-1 reference. Address P. O. Box 654, Suffern, N. Y.

## Hardy Ornamental Plants for Unfavorable City **Conditions**

By L. P. Jensen, Missouri.

Among the various ornamental properties in my charge, the Busch Place of St. Louis, Mo., is the smallest and the most difficult for the growing of hardy plants for naturalistic effect.

The Busch Place contains about five acres of land, all of which is utilized for ornamental purposes. It is located in a thickly-populated district, surrounded by buildings and factories, where the air is filled with smoke and soot.



THE TAST PRENDARY PLANTATION, SHOWING RESIDENCE OF MRS. ADOLPHUS BUSCH.



THE WEST BOUNDARY PLANTATION.

On account of this smoky atmosphere only the most hardy and vigorous plants can be grown successfully. Conifers are entirely out of the question, and have been discarded years ago. During more than twenty years almost all plants sold by nurserymen have been tried, and only those retained which have proven to be of a comparatively healthy growth and hardy.

The present list is small, but should prove of value to persons who have to do ornamental planting in similar

trying situations.

The pictures show the heavy mass plantations along the boundaries, which effectively shut out surrounding buildings, and the massed plantation throughout the grounds, which create a number of interesting vistas and give spaciousness to the place, without destroying the principal open lawn spaces.

Following is a list of the principal plants grown:

Acer dasycarpum, White or Silver Maple,

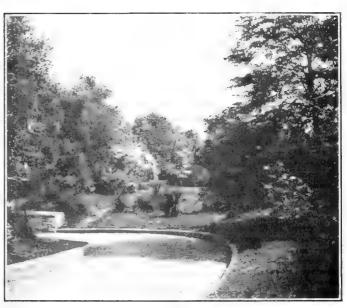
Acer dacycarpum var. Wierii, Wiers Cut-leaf Maple.

"Acer Negundo, Box Elder, Ash-leaved Maple, Assculus hippocastanum, Horse-chestmut.

\*Ailanthus glandulosa, Tree of Heaven. Aralia spinosa, Hercules Club.

\*Broussonetia papyrifera, Paper Mulberry.

Catalpa speciosa, Western Catalpa.



THE DRIVEWAY, SHOWING AN EFFECTIVE GROUPING AT THE ROADS BEND.

\*Cercis Canadensis, Red-bud.

Cratacaus occycantha, English Hawthorn.

\*Fraxinus, varieties, Ash.

\*Gymnocladus Canadensis, Kentucky Coffee-tree.

\*Halesia tetraptera, Silver-bell.

\*Koelreuteria paniculata, Varnish-tree.

\*Liquidambar styraciflua, Sweet-gum.

Liriodendron tulipifera, Tulip-tree.

\*Magnolia's all species hardy in this vicinity.

\*Morus, Tea's Weeping.

Persica, varieties of.

\*Platanus occidentalis, American Sycamore.

\*Platanus orientalis, European Sycamore.

\*Populus, varieties of, Poplar.

\*Robinia pseud-acacia, Black Locust. Taxodium distichum, Deciduous Cypress,

\*Tilia ulmifolia, Small-leaved Linden.

Ulmus Americana. American Elm.

Berberis vulgaris, Common Barberry.

\*Berberis Thunbergii, Thunbergs Barberry.

Cornus alba, Red-branched Dogwood.

Cornus stolinifera, Native Red-branched Dogwood,

Cornus stolinifera, var. flamiramia, Yellow-branched Dogwood.

\*Diervilla in variety, Weigelia.

\*Eleagnus longipes, Oleaster.

\*Forsythias in variety, Golden Bell. Often fails to bloom, but retained on account of their fine healthy foliage.

\*Hibiscus Syriacus, Althaca.

Hydrangea, hardy varieties. Kerria Japonica, Globe Flower.

\*Ligustrum all varieties, Privet, The privets are especially good as they retain their healthy green foliage till late in fall.

Ligustrum Regelianum is of particular graceful growth.

Philadelphus in variety, Mock Orange.

\*Ribes aureum, Missouri Currant.

Rhus glabra, typhina and aromatica, Sumachs,

\*Robinia hispida, Moss Locust.

\*Rosa rugosa, Japan Rose.

Spiraea van Houttei, Bridal Wreath. Blooms very seldom here, but retained on account of graceful growth and good foliage.

\*Syringa in variety, Lilac.

\*Tamarix in variety.

\*Viburnum opulus sterilis, Snowball. By far the most reliable flowering shrub for smoky situations, foliage good, always healthy.

\*Viburnum opulus, High-bush Cranberry.

\*Viburnum lantana, Wayfarers Tree.

\*Viburnum plicatum, Japan Snowball.

Viburnum lentago, Sheep-berry.

Yucca filamentosa and angustifolia do well.

Of hardy herbaceous perennials the following are best:



A LAWN VISTA FROM THE WEST BOUNDARY ENTIRE ESTATE
IS BUT FIVE ACRES.

Hardy Chrysanthemums, Lily of the Valley, Dictamnus fraxinela,

Dicentra spectabilis, German Iris in variety, herbaceous paconies and hardy lilies.

Named varieties of all classes of tulips and narcissus are used by the thousand in the borders, all flowering annuals and perennials being planted in masses against a background of foliage.

#### VINES AND CLIMBERS.

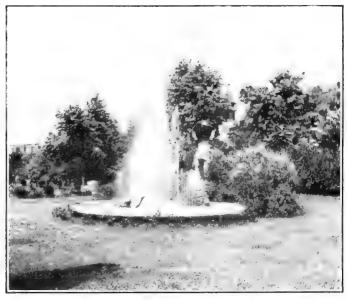
Ampelopsis, species of, Aristolochia sipho, Clematis paniculata. Rambler Roses, Wistaria and Lycium Chinense, Chinese Matrimony vine.

\*These plants have done remarkably well on the Busch Place.

#### PRAIRIE PLANTS.

When, as frequently happens, no rain falls for from thirty to sixty days or more in the growing season the effect on vegetation can be imagined. Cultivated crops often prove entire or partial failures unless the farmer anticipates the lack of moisture at the beginning of the season and holds the moisture in the soil by proper cultivation. Even in seasons of drouth, however, the wild plants seldom fail to make a crop. The compass plants, the sunflowers, the wild vervains and

many others remain fresh and green long after the grasses have become dry enough for prairie fires, but there is a noticeable lack of plants that flower and fruit at the height of the dry season. In these frequent drouths, we see one cause of prairies. Plants that require a fairly constant supply of moisture can not endure the conditions here and give up the struggle. Seedling trees, though doubtless often started, sooner or later find a season too dry for them. Thus the prairies are treeless except along the watercourses. The fires that still oc-



AN ELECTRIC FOUNTAIN WELL BACKLD BY SHRUBS AND TREES.



THE CHILDREN'S PLAYGROUND. NOTE PLANTING AT BASE AND BACKGROUND

casionally sweep across such areas are extremely harmful to all species that do not have some sort of a perennial stem underground. Prairies are like deserts in that the rainfall is unevenly distributed. There are no deserts in which some rain does not fall annually, while some deserts, at certain seasons are as flowery as any meadow. It is the long intervals between rainy seasons that cause the death of all but the most resistant plants. In the prairie region the drouths are of shorter duration but they are still long enough to eliminate many moisture-loving plants and to prevent the growth of trees.—. Imerican Botanist.

THE

### GARDENERS' CHRONICLE

OF AMERICA.

Published by

### THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK. MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Foreign, \$2.00

Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

::

:: ::

Published on the 10th of each month. Advertising forms close on the 1st preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### ASSOCIATION OF GARDENERS NATIONAL

President, J. W. EVERITT, Glen Cove, N. Y.

Vice-President, W. S. RENNIE, Ross, Cal.

Treasurer, JAMES STUART Mamaroneck, N. Y.

Secretary, MARTIN C. EBEL, Madison, N. J.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; Wm. Turner, Mendham, N. J.; Geo. W. Hess, Washington, D. C.; John H. Dodds, Wync etc. Pa

DIRECTORS.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President,
GUSTAVE X. AMRHYN,
New Haven, Conn.

Secretary-Treasurer, ROLAND W. COTTERILL, Seattle, Wash.

JOHN McLAREN HERMAN MERKEL, New York, N. Y.

Vice-Presidents, CARL W. FOHN, JOHN HENDERSON, Colorado Springs, Colo, Montreal, Canada. CHARLES HAIBLE, Newburgh, N. Y. J. H. PROST, Chicago, Ill.

Vol. XIX.

MAY, 1915.

Xo. 5.

The May number ushers in two new departments to our publication—one on native bird protection, a subject in which garden enthusiasts and all nature lovers are showing keen interest; the other on ornamental fowl for parks and gardens, a new phase entering into the development of the modern garden. Our readers are cordially invited to contribute their experience or criticisms to these departments.

We call attention to the proposed campaign of the Committee on Bird Protection, of the National Association of Gardeners, published on the page following. The cooperation of all societies interested in ornithology, directly or indirectly, and civic bodies is sought by this committee in its work, which it is desirous to make nation wide, for

the protection of our native birds.

The report, appearing in another column, of the completeness and beauty of the San Francisco Exposition, sent to us by Chas. H. Totty, should stir the enthusiasm of every horticulturist and lead those so situated to do so to take advantage of the favorable opportunity to visit the Pacific Coast this year. The educational value of such a trip will well warrant the expenditure.

#### CLEVELAND'S FALL FLOWER SHOW.

Judging from the activities of The Ohio Horticultural Society, The Cleveland Garden Club and The Cleveland Florists' Club, during the past few weeks the Cleveland Flower Show, which will be held under their auspices November 10 to 14, 1915, is sure to develop into one of national interest and scope.

It has already been announced that the annual exhibition of the Chrysanthemum Society of America will be held in Cleveland and we are informed that the American Rose Society and also the American Carnation Society have been invited to conduct a Fall Exhibition in Cleveland in connection with the Cleveland Show. The invitation extended to the National Association of Gardeners will be acted on at the next meeting of the directors.

Mr. William Kleinheinz, president of the Chrysanthemum Society of America, states "the exhibition of our society, to be held in Cleveland this fall, will, no doubt, be the largest one we have held in recent years. From the standpoint of attendance we expect to break all records because of the central location of Cleveland."

The following executive committee will have charge of the show: Mr. S. P. Baldwin, representing the Ohio Horticultural Society; Mrs. L. Dean Holden, Mrs. A. S. Ingalls, Mrs. John É. Newell, representing the Cleveland Garden Club; Mr. Frank A. Friedley and Mr. H. P. Knoble, members of the Cleveland Florists' Club; Mr. S. Prentiss Baldwin is chairman; Mr. F. A. Friedley, secretary, and H. P. Knoble, general chairman of the show committee.

#### THE GROWER OF FLOWERS.

Obviously, the man who raises flowers is a better man than one who raises Cain, though he may be no better than one who raises cane. But, it seems to us, the man who raises flowers should be the happy man; a happier man than many a one who is engaged in other vocations. It should contribute to one's happiness to daily potter among plants and growing things; to pot and plant, and graft—in the only way that grafting is reputable—and to see his work continually glorified in endless reproductions. He can say, with truth: "Yes, Nature is the author, but I am Nature's servant and assistant; and, behold, what miracles we have together wrought!

The man who raises flowers should be a good as well as a happy man; for the happy man cannot be other than good. He lives with innocence and beauty. He saturates his soul with such colorings as no artist can place upon his palette; and he lives in an atmosphere of fragrance as sweet as the incense which rises before holy altars; more sweet, indeed, for it is fragrance fresh from the hands of God.

This man, who spends his days urging the soil to join with the sun and the breeze in the creation of beauty, must rejoice in the pure chastity of the lily and thrill, at times, in sympathy with the passion of the rose. He is so closely in touch with the microscopic tides of life, with the ardor of Nature's chemistry, that he cannot escape their influence if he would! and he would not if he could. If he be something of a poet, he may at times, in imagination at least, hear the tiny ripplings of the vital streams as they go singing along the mysterious avenues of leaf and stalk and bough.

It is a wonderful vocation, this flower culturing. There must be vastly more to it than the money one gets out of it. If ever there was a labor that one could easily love, and ought to love, it must be this labor which enables a man to conjure forth buds and blossoms of beauty.

—American Florist.

### NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

#### RECOMMENDATION TO CO-OPERATIVE COMMITTEE.

The local of operative committee of the Nassau County Horti cultural Society, (den Cove, N. Y., sumbits the following recommendation to the National Co-operative Committee. The plan will be submitted to all local horticultural societies at an early date for action. J. W. EVERITT,

Chairman National Co-operative Committee.

Your committee on co-operation having been instructed to present a draft of a plan on co-operation or affiliation of gardening societies with a view to creating a stronger feeling of goodfellowship energet members of such societies, beg to submit the following for consideration:

A number of a horticultural society, such as the Nassau County Horticultural Society, removing to another locality, and being desirous of associating himself with the horticultural society in the locality to which he has gone, should become eligible to full membership therein if he is in good standing, without the payment of dues to the end of the fiscal year, and vice versa. In other words, he would simply be transferred from one society to another without any extra monetary charge whatsoever.

It would make it so that a stranger could enter a society in his new location and, presenting a letter, or identification card, to the secretary of that society from the secretary of the society from which he was leaving, would be introduced to the members and made to feel at home.

Believing that this plan can be more widely circulated and carried out by the National Association of Gardeners, your committo reontained that this society refer the matter to that body, and if acceptable to them, to have the National Association of Gab. 2.218 cony out the plan.

Signed,

JOHN JOHNSTON. SAMUEL J. TREPESS. ERNEST WESTLAKE,

Committee.

#### REPORT OF THE COMMITTEE OF BIRD PROTECTION,

Your committee on bird protection has decided on the following method of carrying out an active campaign:

1. To request the members of the association and readers of the CALOSNERS' CHRONICLE OF AMERICA, to submit articles on bir' or testion for publication in the GARDENERS' CHRONICLL, and to enleavor to have these articles republished in other horticultural and agricultural periodicals.

2.—To keep in touch with the work of the various Audubon societies, State Experimental Stations, The Bureau of Biological Survey, of the U.S. Department of Agriculture and other authoritative sources of activity for the protection of our native birds.

3. To digest the information thus obtained, and incorporate in future reports.

4.-To keep in touch with the literature on this subject and advise members of future publications of value.

5. To also ate the adoption of a "Bird Day," in connection with "Arter Pay."

6. To work to the adoption of a systematic state effort of educating the public, and particularly the children, in the economic value of bind protection.

7.—To assist in the effort of having cities create the office of "City Ornithologist," for the protection of birds in cities.

runnier of the National Association of Gardeners is requested to communicate freely with the chairman of this committee, on anything pertaining to this subject, as your committee needs your individual assistance and suggestions.

Respectfully submitted. The Committee on Bird Protection. L. P. JENSEN, Chairman, Busch Place, St. Louis, Mo.

Dr. V(x,y) W. Henshaw, Chief of the Bureau of Biological Survey,  $V_{ij}$  S. Department of Agriculture, Washington, D. C., informs me that he will be glad to send copies of the following publications to any of our members interested in bird protection: "Bird Houses and How to Build Them."

"Some Common Birds Useful to the Farmer."

"How to Attract Birds in the Northeastern States."

"A Preliminary Census of Birds."

L. P. JENSEN.

The following invitation comes to us from the chairman of the executive committee of the Cleveland Flower Show to be held in that city November 10 to 14, 1915; Mr. M. C. Ebill. Secretary.

National Association of Gardeners. Madison, V. J.

Dear Sir.

You will be interested to learn that the Cleveland Flower Show, to be held November 10 to 14, will be the only large show of national interest to be held this fall.

Our executive committee voted to extend an invitation to the National Association of Gardeners, to hold a fall exhibition in connection with and to be a part of the Chereland Flower Show,

A copy of the advance premium list was mailed to non some time ago. It you think it necessary to enlarge the schedule by adding special classes and premiums, our committee will be very glad to receive suggestions from you to that effect.

We wish that you would extend an invitation to your members at your next meeting to attend the Cleveland Show, whether they exhibit or not. We are planning to entertain the largest number of private and commercial growers, retail and wholesale dealers and supply men, ever brought together at a fall show.

As you know, the national convention and exhibition of the Chrysanthemum Society of America will be a part of our show.

We thank you for your interest and the co-operation we feel sure we will receive from The National Association of Gardeners.

S. PRENTISS BALDWIN, Chairman Executive Committee.

### AMONG THE GARDENERS

Peter Morrison recently resigned his position as superintendent of the Arthur H. Scribner estate, Mt. Kisco, N. Y., to accept a similar position at Cedar Crest, the estate of R. H. Ingersoll, Oyster Bay, N. Y.

Berthold Frosch, who has supervision of the improvement work on the Andrew W. Mellon estate, Squirrel Hill, Pittsburgh, Pa., will shortly begin the building of a new range of greenhouses.

George H. Hale, formerly superintendent of the E. T. Adams estate, Rumsen, N. J., has accepted the position of manager of the Session Greenhouses, Bristol, Conn.

George B. Anderson, formerly of Hillburn, Rockland County, N. Y., has secured the position of gardener on the estate of C. B. MacDonald, Southampton, L. I.

David S. Miller, superintendent of "Kincraig," the estate of C. D. Mason, of Tuxedo Park, N. Y., resigns his position on June 1 to accept the position of superintendent of the new estate of J. Insley Blair, also located at Tuxedo. This is a new place of over ninety acres and will take several years to develop,

Duncan MacGregor, foreman for a number of years of "Kinunder Mr. David Miller, will succeed him as superintendcraig.

Felix Wood, late superintendent to Mrs. William Arnold, Babylon, L. I., has accepted the position of gardener to Mrs. A. J. Moulton, Llewellyn Park, Orange, N. J., succeeding Arthur Jackson, who recently resigned.

Roy H. Caverly recently resigned his position as gardener to C. H. Traiser, Clifton, Mass., to accept a similar position with Clemance A. Heass, Milton, Mass

Percy E. Hicks, who succeeded Wm. Turner as superintendent of the B. H. Borden estate, Oceanic, N. J., has resigned his po-

Frank Honneyman, superintendent of the Percy Chubb estate, Glen Cove, N. Y., leaves that estate to accept the superintendency of the Borden estate, Oceanic, N. J.

Frank Jones, for some years foreman on the Percy Chubb estate, Glen Cov. N. Y., succeeds Mr. Honneyman as superintends ert.

### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. X. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### ASSOCIATION NOTES.

With committees appointed as announced in last issue, arrangements are well under way for our annual convention in San Francisco, August 18.

Herman Merkel, chairman of the transportation committee, is a live wire when he gets to work and he is determined to make the special party a success, and indications are that the attendance at this year's convention will break all records. Various cities along the route are already at work on plans for entertainment and the trip will simply be one continual round of pleasure and instruction. Secretary Cotterill is planning to go to San Francisco in June and confer with Chairman McLaren, of the Convention Committee, and the local committee at San Francisco, regarding details of all arrangements, program, halls, hotels, tours, etc., so that complete detailed information can be sent to all members by July 1 at latest.

There are a few members who have not as yet paid their dues for the current year, and the secretary wishes to urge these members to remit at once, so that we may have funds in hand to carry forward our work without going in debt. It costs no more to pay dues now than to pay them at the convention, and it will avoid the accumulation of unpaid bills as has been the custom heretofore. The Association right now does not owe a cent, and your officers are anxious to keep it in this condition. If you are one of the delinquents, send in a check right now.

The Association needs more members in order to provide sufficient funds to properly carry on its work, and members are urged to bear this in mind and secure as many new members as possible for the San Francisco session. There are surely men in your section of the country eligible for membership in the Association. Talk to them, write to them, or send names and addresses to the secretary, and he will correspond with them, send application blanks and extend convention invitation, etc. The secretary promises to help on any prospects forwarded and himself will have five applications for membership at the next session. Who will do the same?

Through our member, L. P. Jenson, superintendent of Grounds at Busch Place, at St. Louis, an invitation has been extended to our Association, in connection with its San Francisco convention, to visit Busch Gardens, at Pasadena, near Los Angeles. The Busch sunken gardens and parks have a national reputation and the invitation should be taken advantage of.

#### PARK DEPARTMENT PERSONALS

Dwight P. Davis, who recently retired as Commissioner of Parks of St. Louis, after many years of efficient service, was tendered a farewell banquet by 300 members of the St. Louis Park Department Employes Association.

A "Smoker" followed the dinner, speeches eulogizing the work of Mr. Davis were made by various city officials, and a beautiful bound volume testimonial, setting forth the innovations and improvements introduced by Mr. Davis, was presented to him by his employes.

Mr. Davis will be succeeded by Mr. Nelson Cunliffe.

Frank Brubeck, formerly superintendent at Terre Haute, Indiana, who lost out on account of political changes and entered the U. S. Revenue Service, has received a promotion to the position of General Travelling Deputy for the states of Indiana and Michigan. Mr. Brubeck, however still has hopes of returning to park work, and is merely awaiting the right opportunity.

John D. McEwen, superintendent of Queens Borough Park Department, New York, has been nominated for membership in the Association by Frank Hamilton, of Bronx Park Department. Mr. McEwen and his wife are planning to attend the San Francisco convention.

Chas. G. Carpenter, superintendent at Milwaukee, and for many years one of our most active members, it seems, has been confined to his home seriously ill since last July, but hopes to resume his

duties in the near future, his place having been held open for him by the Milwaukee Park Board.

This belated information comes to the secretary from an indirect source, and explains why Mr. Carpenter was not with us at the New York convention.

Herman H. Beyer, formerly an active member of the Association, while superintendent at South Bend, Indiana, is now located at Michigan City, Indiana, where he serves as superintendent of parks and is also in business as a landscape architect. Mr. Beyer will probably attend the August convention, and affiliate again with the Association.

Emil T. Mische, of Portland, Oregon, and one of the "war horses" of the Association, is so pleased over the convention coming to the Pacific Coast that he promises to have five new members for the convention. This is the right spirit, as we certainly should have more members.

The annual report of R. Brooke Maxwell, City Forester of Baltimore, and a member of our Association, is an interesting document. Baltimore is handling the street tree problem in a practical way, a feature which is, unfortunately, not given the attention it deserves by most cities.

The writer visited Baltimore last August, and was much impressed with the beautiful planting and floral display in street parkings and squares, which excelled those of any other of ten or twelve cities visited.

Messrs, Manning and Maxwell have producel results which are a credit to Baltimore and a shining example to other cities.

"Parks and Parkways of Bronx Borough," is the title of a booklet recently issued by the Bronx Board of Trade, and in the judgment of the writer, it is the best publication yet sent out from the metropolis, on the subject of New York park administration. The usual official New York publications are massive documents, with extensive detail and a mass of statistics, but this little booklet is quite compact, is attractively arranged and illustrated, and contains more valuable information, both from the standpoint of the local citizen or the outside observer, than all other publications combined. It is rather unique in that it is evidently issued by a commercial organization, yet it contains just the sort of information one should find in an official report. If you received a copy look it over carefully and you will find that it is out of the ordinary and is the finest kind of a model for a comprehensive and useful annual report. If you do not get one, send to the Bronx Board of Trade and get this valuable booklet for your files.

Members from the eastern and middle western states who contemplate attending the summer meeting at San Francisco in August, should place themselves in communication with Mr. Herman Merkel, so that he can give them full particulars and information on the plans of the California party, which will leave New York on August 5, Chicago 6. An itinerary of the trip, giving full details of the route, cities to be visited, rates, etc., is now in the printers' hands, and will be ready for distribution in a few days.

#### POSTPONING THE FLOWERING OF SHRUBS.

Since the use of the cold storage houses has become a feature with so many nurserymen, it has opened a way to having shrubs in flower at seasons differing from their natural one, which often is desirable. Many florists in cities have calls for cut flowers in summer which are quite out of season, but which late planting makes feasible. Hydrangeas, both paniculata grandiflora and arborescens grandiflora, represent two such shrubs, their large panicles of flowers being so useful to the florist. When in cold storage or even when heeled in in a cool place outdoors, their planting can be delayed a long time, and a delay of a month or so in planting in spring brings them in flower that much later in summer. Though the practice is not yet general, there are many who follow it, and much to their profit. Besides the hydrangeas there are other shrubs that could be used, and even putting aside the commercial view of this late planting, many a gardener would give much pleasure to his employer by so managing some of his shrubs to have them in bloom at a desirable time.

## The Parks of Los Angeles

By Laurie Davidson Cox\*.

The student of park development will find amidst the wealth of park interest on the Pacific Coast not the least of his surprises in southern California.

Los Angeles is better known, perhaps, in the East than any of the coast cities because of her equitable climate, and although she is far behind her sister cities-Seattle and Portland—in the development of a comprehensive park system, she has much of interest for the park enthusiast in her individual park areas. Especially is this true as regards the wealth of horticultural effects. Probably nowhere in America will such a variety of tropical, semi-tropical and temperate plants be found to the area and number of parks for many years; the existing neighborhood parks, which had largely been developed when Los Angeles was a comparatively small city, had not kept pace with the growth of the city in the dignity or metropolitan quality of their design and development; while Griffith Park, the city's mountain reservation of 3,000 acres and the greatest of her park treasures, was totally neglected.

With the advent of the present park commission, some four or five years ago, a vigorous campaign for park improvement was inaugurated and the results, in spite of the small funds available, are already apparent,

and some six months or more ago comprehensive plans for a municipal and metropolitan park system were prepared by the author.

The city of Los Angeles contains some twenty-five parks, the total areas of which is approximately 4,090 acres, three quarters of which lie in Griffith Park, a mountain reservation. The most recent inventory of the department shows real estate, buildings,

equipment and supplies valued at more



CENTRAL SOUARE, ONE OF THE MOST

growing side by side in a public park.

This very wealth of horticultural detail is to blame for the slowness with which the people of Los Angeles have come to appreciate good landscape design and the need for a model and comprehensive system of parks. The city has, however, awakened to this need at last and is today in the process of securing a thoroughly model system of park development.

The city of Los Angeles is particularly fortunate in possessing a large number of widely distributed park areas, all of diverse topography and scenic possibilities, instead of having her main park development concentrated in a single large area as is the case of her neighboring cities of San Francisco and San Diego. This distribution of the park areas makes them very accessible to the public and it is doubtful if there is a city in America where the parks are so generally and constantly used as in Los Angeles. This constant use is an inevitable result of a climate which causes the parks to be attractive and habitable nearly every day in the year.

It is only in the last few years that the present conception of a comprehensive park system for Los Angeles has taken form. Previously there had been little addition



THE AUTOMATIC SPRINKLING SYSTEM, ORIGINATING IN CENTRAL SQUARE, HAS BEEN INSTALLED IN HUNDREDS OF PLACES ALL OVER THE COUNTRY.

than \$9,000,000. During five years of the regime of the present park administration the annual expenditures for parks has nearly doubled. During the present fiscal year the city spent \$313,168, approximately \$1,000 per day for each working day of the year.

Maintenance is continuous throughout the year in the climate of southern California and the park department employs 250 men and 100 head of stock and owns much rolling stock and machinery. The department also owns and operates two fertilizer plants, which manufacture yearly 8,000 tons of fertilizer from refuse which the department receives free. It also operates a nursery which propagates about 500,000 plants and trees annually; it maintains a permanent, well organized construction force of skilled mechanics and artisans, and all building and construction work of every kind formerly done by private contract, is performed by this force. So great is the

<sup>\*</sup>Landscape Assistant of the Los Angeles Park Department, 1911-1914.



LAKE IN TASTLAKE PARS, SHOWING THE MAGNIFICENT ENCALYPTIS TREES ALONG THE SHORE, FOR WHICH THIS PARK IS NOTED.

saving effected that the park department, almost continuously throughout the year is called on to perform construction work for other city departments.

In all its work the department maintains an accurate cost accounting system, all work being carefully estimated and performed according to and the final cost checked against, approved work orders. An exact system of apportioning maintenance and standardizing labor units has been worked out so that a large saving has been effected in maintenance costs, which saving has been applied to permanent improvements.

Of the total expenditure for the year 1912-13, 57 per cent, went into permanent improvements, as against an average of 13 per cent, previous to the regime of the present park organization. With the increase of expenditure as mentioned above and this proportion of description it can be seen how the city has been able to make much progress in park development in the past few years even without park bond issues so common in many cities.

The larger and more important parks of Los Angeles with their acreage are as follows:

.\cres	Acres.
Griffith Park3.015	Hollenbeck Park 20
Elysian Park 748	
Exposition Park 117	
Eastlake Park 45	Sunset Park 11
Westlake Park 32	Central Square 5
Echo Park 29	

In addition to these there are fourteen minor parks ranging in size from a city lot to an area of several acres.

Probably the best known park in Los Angeles is Central Square, located at Olive and Sixth streets. With its fountain, evergreen lawns and splendid specimens of tropical trees it forms one of the most beautiful formal squares in America. It is situated in the heart of the business district and is the only park area lying within the downtown section of the city. The reconstruction of this park from a run-down village park to a dignified city square was among the first large pieces of work performed by the present park commission. In 1911 the park was entirely resoiled, redesigned and reconstructed at a cost of \$32,000, including an \$11,000 underground comfort station as fine as is to be found in any city in the United States.

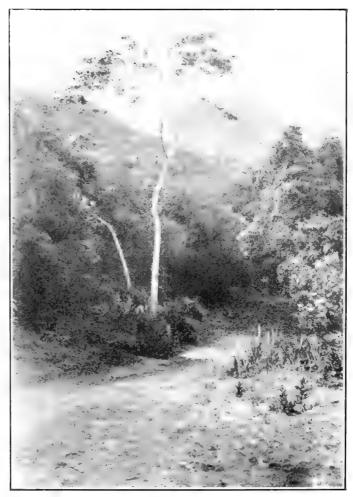
The five acres which comprise this park are worth, ac-

cording to current values of adjacent real estate, more than five millions of dollars, so that this little park is the most valuable park holding of the city.

Central Square has a great deal of historical interest. It is the oldest of the city parks and was a portion of the original grant to the pueblo of Los Angeles by Charles II of Spain in 1781. There is a monument in the park to the soldiers who fell in the war with Spain and near this is a bronze cannon captured at Santiago de Cuba, July 17, 1898. This cannon was made at Douay, France, in 1751, during the reign of Louis XV, for the French navy. It bears the sea emblems of naval guns and also the lilies and armorial bearings of the Bourbons. It also is inscribed with two mottoes in Latin meaning "the last argument of kings" and "A worthy adversary for many foes." The cannon was probably left in Spain by Napoleon's retreating army in 1813 and later taken by the

Spaniards to Cuba.

Exposition Park, which is being constructed through the joint efforts of the city, county and state, will be, when completed, one of the finest formal parks in America and easily the most elaborate park of similar area in the west. The county art and natural history museum with its world famous collection of prehistoric skeletons discovered in the La Brea oil beds is located in



THE FAMOUS BRIDAL TRAIL IN GRIFFITH PARK

this park. Here is the state exposition building where all forms of California products are exhibited and for whose maintenance the state appropriates \$30,000 a year. The state armory recently completed at a cost of \$250,000 is also located in this park.

The park contains a very fine mile race track, surrounding a twenty acre playground and athletic field. In addition to several football and baseball fields and a large range of tennis courts, this area is to contain a sunken concrete stadium for the holding of all forms of athletic games. A \$60,000 steel and concrete grandstand, a private gift, was recently erected by the park department on this track and a large club house and locker building with an outdoor swimming pool in connection is soon to be constructed.

The stables in connection with the race track are situated in the rear of the park and have accommodations for 200 horses. They are nearly always filled with thoroughbred race horses which may be seen in action every day in the year. Many prominent horsemen bring their racing stables to Los Angeles for the winter months.

The most striking feature of Exposition Park is the

architectural effect secured by the arrangement of the above mentioned buildings, which are all the same material and style and all of great architectural beauty. They are grouped about three sides of a quadrangle which contains a nine acre sunken gar-den. In the center of this garden is to be located the memorial fountain commemorating the completion of the Los Angeles aqueduct.

Eastlake Park is the largest of the intown parks of

Los Angeles and is one of the finest neighborhood parks in the country and by far the most popular and most used park in the city. At this park are held the great state picnics for which Los Angeles is famous, as many as 30,000 people often attending a single picnic here.

This park during the past three years has been in the process of a complete reconstruction and the work has been but recently completed. Eastlake is among the oldest of the city parks and the magnificent specimen trees with the great areas of lawn give to this park a charm perhaps greater than that of any other park in the city, certainly nowhere else in southern California can such an expanse of rolling lawns be seen. The park contains a fair sized lake, where boating is enjoyed by large numbers. A feature of the recent improvement has been the erection of a brick boat house and bandstand with an extending pergola pavilion encircling a large music court.

Eastlake Park has contained for many years the city conservatories and greenhouses and a complete new plant has recently been finished to replace the old buildings which were falling into decay. This new range of conservatories has been three years in building. It is com-

posed entirely of fireproof materials and will be practically indestructible. The ten sections of the building form one of the finest ranges of conservatories in the country, the largest public one west of Chicago and St. Louis. This conservatory has been designed and built by the park department with its own forces and at a cost of approximately \$90,000, some \$40,000 below the lowest contractor's estimate.

The park contains also a recently erected Carousel, or Merry-go-round, costing some \$20,000. A range of tennis courts and an outdoor swimming pool with surrounding shelter and pergolas to be built within the coming year completes the amusement features of the park.

Griffith Park with its area of 3,015 acres, the largest of the city park areas, is the third largest municipal park in America, being exceeded in size only by Fairmount Park in Philadelphia and the Blue Hills Reservation of Boston. The scenery in Griffith Park is probably more varied than can be found in any other city park in the United States and includes high mountains, deep canyons, open meadows and heavily wooded river bottoms. From the roads and trails splendid views are obtained also of the

distant mountains on one hand and of the sea on the other. There are forests here of native trees of large size, and the shrubs and flowers native to southern California are found in abundance.

The work of developing this park was begun four years ago and a great deal already has been accomplished. Some 14 miles of road have been built and the park department at present is cutting three miles of additional roadway through the mountains on the south-



SAN PEDRO PLAZA, OVERLOOKING FOS ANGLEUS HARBOR

ern side of the park. The new road will connect with the portion already complete and form a fifteen-mile circuit of the park completing what is to be known as "El Camino Felix" (the Happy Road) destined to be one of the most scenic park drives in America. In addition to the roads, five miles of bridle trails and several miles of foot trails have been opened, while numerous picnic grounds, supplied with tables, seats, cooking furnaces and drinking water have been constructed. A complete water system has been installed with reservoirs, pumping plants and many miles of main and supply pipes furnishing water to every section of the Park and greatly increasing the protecting against the fire damages so dreaded in the dry season.

A beginning has been made in this park of what is destined to be a great open air zoo, with animals kept as nearly as possible under natural conditions. A permanent range of bear dens is completed and a number of temporary cages and corrals have been built to house the large collection of animals formerly kept in Eastlake Park.

This year a range of lion dens in which there will be no bars between the lions and the spectators is being con-

structed similar to that of the famous Hagenbeck zoo in Europe. Even in its earlier stages as at present the outdoor Griffith zoo is one of the most interesting sights in

Los Angeles.

One of the features planned for Griffith Park is a free people's country club. This will consist of a large and well appointed club house with adjacent athletic grounds, tennis court, golf course and open air swimming pool. All these will be entirely free to the public. The golf course was recently completed and is now in full operation. It furnishes an interesting and sporty eighteen hole course, one of the best in California.

Besides the parks already mentioned, several other parks offer varied attractions to the visitor, each with its individual interest and charm. Echo Park contains the largest of the park lakes, and claims many with its splendid boating and canoeing facilities. Sycamore Grove with its shady groves of giant sycamores and the neighboring wild scenery of the Arroyo Seco is especially

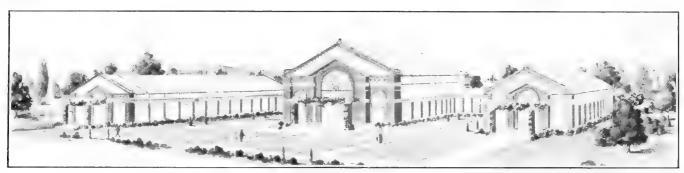
popular with picnickers.

Many of the parks contain tennis courts, Sunset, South and Sycamore being the most important. Hollenbeck Park shares with Echo in boating popularity and is the real canoe resort of the city. A very attractive stone boathouse and refractory has recently been completed here. Westlake Park, which lies in the heart of the hotel district, is widely known and is one of the oldest city parks. It has a large lake much used for boating and canoeing. Westlake is the least attractive of the city's parks as it has not yet been reconstructed. It is a wonderful example of the chaos and confusion into which a park will grow if allowed to develop by piece meal edition through a great many years of successive and changing park administration, when there is no definite and constant plan to follow. It contains, however, a great wealth of horticultural detail of much interest.

The San Pedro plaza, which lies along the bluffs above the city's harbor at San Pedro, is perhaps the most unique park in the city. The view from this park over the busy shipping of the harbor of a great city is one not often to be enjoyed from the vantage point of a green lawn under the shade of splendid trees. This park has been recently reconstructed, graded and planted and is provided with shady walks, broad stone seats and a charming stone rest-

house and overlook.

A project proposed in the plans for a comprehensive park system mentioned above is at present before the city. This project looks to the acquisition of two parkways in the Silver Lake and Arroyo Seco valleys. The land for these parkways is being condemned and when secured and developed will form the principal features of a great parkway drive leading from the federal forest reserve north of Pasadena, through the cities of Pasadena and South Pasadena by way of Elysian Park and Wilshire Boulevard to Santa Monica and the sea. This will form a continuous park drive more than thirty miles long, a great boulevard from the mountains to the sea, a parkway drive unique among the park features of America.



D. CON, LANDSCAPE ARCHITECT. AND ERECTED UNDER HIS LASHLAKE PARK CONSERVATORY DESIGNED BY I SUPERVISION

#### SELECTING A GOOD NURSERY TREE.

Usually the grade of a nursery tree is determined by its height, straightness of trunk and caliper at point three inches from the ground. This rule of size, straightness and trunk caliper holds for those varieties which are good growers in the nursery, but there are others, and desirable ones too, like Rhode Island Greening, which are crooked growers and make first-class trees even though they are crooked. A first-class tree should be well grown, be healthy and vigorous, have the peculiar characters of the variety (this allows crooked trunks if they result from the natural habit of the tree), be free from insect and disease blemishes, with smooth, clean bark and stocky trunk, have the union of cion or bud with stock healed over, and be mature (this means that the green leaves should not be stripped off before they are ready to drop naturally).

Low-headed trees cannot, of course, be graded in height with high-headed ones of the same grade, nor can one-year-old ones compare in all respects with two-yearolds of the same grade. A general standard for grading is adopted by most nurserymen and this in a measure answers the purpose if the stock is about the same age and character when sold. Now that low-headed and oneyear-old trees (besides the peach) are demanded, it might be a good plan to adopt certain measurements for lowheaded trees and others for high-headed trees one year old, and other measurements for two years old, etc.

It is often the case that when the proper way of heeling in trees is not understood, the roots are only partly covered and they dry out to the extent that the trees make only a weak start, if any, and die during the first season.

In digging nursery trees the root system is injured and about seven-eighths or more of it is left in the ground. Since the root system is reduced so much the top must be reduced proportionately to maintain a fair balance between top and root. The roots should be pruned so as to leave only three or four inches of each one. All bruised parts should be pruned off and all cuts should be clean and smooth. The tree is then in shape to be quickly and easily planted, for a slight up-and-down movement of the tree, while the earth is being thrown in, will settle the earth around the roots, where it should be firmly packed. If the ground is well prepared the holes for the trees need not be very large, but if it is hard or in sod it is well to make them three or even four feet across.

The tops should be pruned, leaving spurs with two to four buds each, and the "leader" should be cut off about two and one-half feet from the ground. The more foliage the better on the little trees, because leaves increase the circulation and assimilation of the sap and shade the

trunk.—. American Fruits.

#### WOMAN'S NATIONAL AGRICULTURAL AND HORTICULTURAL ASSOCIATION.

The annual convention of the Woman's National Agricultural and Horticultural Association was held under the auspices of the Horticultural Society of New York, at the New York Botanical Gardens, Bronx, New York,

on Friday, May 7.

An interesting program was provided, which held the attention of the audience-which was a large onethroughout the session. The 1915 Conference Committee, which consisted of Mrs. Francis King, Miss Hilda Loines, Mr. Geo. T. Powell, Mr. Bernard N. Baker, Mrs. Albert B. Boardman and Miss Alice E. Robbins, left nothing wanting in the arrangements.

The exhibit of members' work, which was in charge of Mrs. S. A. Brown and Mrs. Florence Merriam Hill,

was a most creditable one.

At the executive meeting, held in the forenoon, the old directors were re-elected to office. The officers, having been elected at the last convention for a two years' term, serve for another year. The various committees rendered some interesting reports, the membership committee showing an increase for the year of from three hundred and sixty-five to over eight hundred members.

A change was made in the by-laws to provide for difterent classes of members as follows: active members, associate members, sustaining members and life members. The dues of the active members remain as heretofore-\$1 for the year. Associate members' dues were fixed at \$2; sustaining members, \$5; life members, \$25.

The program was made up of the following speakers: Dr. S. E. Persons, Cazenovia, N. Y., "The Cazenovia County Fair"; Arthur D. Dean, Albany, N. Y., "Agriculture in the Rural Schools"; D. G. Mellor, New York, N. Y., "Official Marketing of Farm Products"; Frank A. Waugh, Amherst, Mass., "Dwarf Fruit Trees"; William C. Demin, Georgetown, Conn., "The Possibilities of Nutgrowing in the East"; Maurice Fuld, New York, N. Y., "Perennials"; George T. Powell, New York, N. Y., "Some Important Requirements in the Back-to-the-Land Movement"; Samuel Fels, Philadelphia, Pa., "Vacant Lot Gardening"; Miss Louise Klein Miller, Cleveland, Ohio, "The Education and Civic Significance of School Garden Work"; Dr. C. D. Jarvis, Washington, D. C., "Home Gardening Under School Supervision.

Mrs. Charles Frederick Hoffman, who was to address the convention on the "International Garden Club," prevented from being present owing to illness. Mrs. Albert B. Boardman and Thomas W. Whittle, Commissioner of Bronx Parks, New York, were among the

speakers not on the program.

John Cook, of Maryland, who had been invited to address the conference on his experience on rose culture, wrote that owing to his age, being eighty-two years old, it was impossible for him to be present in person, but he contributed an interesting paper, published elsewhere in these columns, which was read by the secretary, Miss Loines.

#### INTERNATIONAL GARDEN CLUB.

The opening of the clubhouse of the International Garden Club, which has taken over the Bartow Mansion, Pelham Bay Park, New York City, occurred on May 1 under most auspicious circumstances, with a notable gathering, which included Governor Whitman of the state of New York, and many others prominent in the official and social world.

The ceremonies attending the opening included the

planting of a Red Oak tree by Governor Whitman, to take the place of the ancient "Treaty Oak" which was destroyed three years ago, and under which tree a contract for the sale of the land was signed by the Indians to Thomas Bell in 1654. After the exercises were over refreshments were served in the new clubhouse, the interior of which has been entirely renovated and newly furnished.

As has already been reported in these columns, the purpose of the club is to make it a headquarters for all garden interests. Its promoters aim to in time establish a horticultural garden, which may compare favorably with the world renowned Kew Gardens in England.

The seventeen acres of ground which surround the mansion will gradually be developed into a general garden, which will include a rose garden, a hardy garden and a rock garden. This department is under the supervision of Arthur Herrington.

The officers of the International Garden Club are: Mrs. Charles Frederick Hoffman, president; Dr.

Nicholas Murray Butler, honorary president; Judge William A. Day, treasurer; Mrs. H. de Berkeley Par-

sons, secretary.

#### STATE FLOWER SHOW AT COLUMBIA, MO.

At the tenth annual spring fair of the College of Agriculture, of the State University, on April 23, 24, 25, at Columbia, Mo., students of the Department of Horticulture held a flower show as a part of the educational exhibit.

The schedule included classes for specimen plants and cut flowers; also for floral designs and table decorations and provided for both the professional and the amateur grower. The show was held in an enormous tent having a floor space of 9,600 square feet, and proved a great success in every way. Aside from the cut-flower exhibits, plants and decorative designs were very artistically arranged, and formal and rock gardens were made by students of the Department of Horticulture of the University of Missouri. The University Department of Entomology made an interesting exhibit of specimens of injurious and beneficial insects.

The judges of the show were: Dr. J. C. Whitten, professor of horticulture of the University of Missouri; Mrs. J. G. Babb, president Civic League, Columbia, Mo., and L. P. Jensen, landscape architect of Busch Estate. St. Louis, Mo.

#### THE AMERICAN DAHLIA SOCIETY.

A new society, under the name of the American Dahlia Society, was organized in New York on May 10. The meeting was called together by Richard Vincent, Jr., of White Marsh, Md. A representative gathering of professional and amateur growers of the dahlia assembled at the Grand Hotel for the purpose of organizing. The main object of the society is to disseminate a greater knowledge among professionals and amateurs on the culture of the dahlia and to arouse a greater interest in dahlia shows. It was voted to hold the first annual show of the society in New York in the Fall.

The following officers were elected: President, Richard Vincent, Jr.; Eastern vice-president, Geo. L. Stillman, Westerly, R. I.; Central vice-president, E. S. Brown, East Moriches, N. Y.; Southern vice-president, L. P. Peacock, Berlin, N. J.; Western vice-president, W. W. Willmore, Colorado; secretary, Jos. J. Lane, New York, N. Y.; treasurer, F. R. Austin, Tuckerton, N. J.; Executive Committee, Geo. W. Kerr, I. S. Hendrickson, James

Duthie, John S. Vincent, Hugo Kind.

#### **QUERIES and ANSWERS**

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.

Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

atter. Nothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

#### REPLYING TO DISCUSSION OF THE QUESTION OF HARDINESS AND VIGOR. ENGLISH vs. DUTCH RHODODENDRONS.

To me, the most interesting contribution to your last number (April, p. 199), was the letter by Hans J. Kohler. Although this was mainly in the form of interrogations, it was evident that Mr. Kochler knows more about rhododendrons than his letter would lead the uninitiated to suspect. I hope, for the sake of this noblest and grandest of all flowering shrubs, that a good discussion will result. I know too little myself to speak authoritatively on the subject, yet add my testimony for what it is worth. First, then, question 1: The rhododendrons grafted on ponticum, from whichever country, are less hardy than those on catawbiense. is no possible reason why the Dutch rhododendrons should be less hardy than English. Both are grown in friable, sandy peat soil, and the winter in Holland, on the whole, is probably more severe on the average, than the winter in southern England, where the majority of the rhododendrons are grown at Basshot. Of course, the Holland stock may be more "succulent," owing to much moisture in the soil causing fast growth.

Question 2 is answered in the foregoing.

Question 3 (or c), and 4 may be answered by saying that for a long time past the chief English raisers and exporters of rhododendrons have been devoting special attention to the production of perfectly hardy, free growing and floriferous hybrid and crossbred varieties. The beautiful Gomer Waterer is the best example. But look over the list of the favorite kinds and see how many bear English names.

Question 5 (e).—Layered rhododendrons, while quite desirable, are too slowly procurable to make them profitable to the commercial grower. A. BEACON, Massachusetts.

Can any of your readers advise me of the value of spent hops from breweries as a fertilizer? What is the best method to use for mixing and applying them to the soil? PELHAM. New York.

In answer to your inquiry as to the value of spent hops as a manure will say, that we have used it for the past two years as a mulch for shrubbery borders and for top dressing of lawns. We prepare it as follows: The spent hops are deposited in long piles, and permitted to lay till early winter when the piles are turned over and mixed with two thirds of well decomposed stable manure. This is again turned over the following winter, and in the month of February loaded on cars shipped to our various country places and applied as you would manure to the lawns and mass plantations.

In early spring the surplus material is raked off the lawns and used as a mulch wherever needed.

This season we are using a few carloads of this mixture on land which will be planted with corn.

As to its value for this purpose, the following abstract from a letter of March 10, 1914, written me by Professor J. C. Whitten, of the University of Missouri, may be of interest:

"With regard to the fertilizing value of spent hops or their value as a mulch for plants. I might say that the spent hops contain a relatively small amount of plant food material or of fertilizing value. On clay soils which do not contain much humus or vegetable matter, they are a good top dressing, however, to furnish a mulch. They are a very good top dressing for lawns, especially in heavy clay loam where something in the way of decaying vegetation is needed. For this purpose they would have approximately one-half the value of stable manure. They are also a very good mulch for young newly planted shade trees, shrubs or shrubbery masses on the lawn. They have quite as good qualities of mellowing, loosening and floculating the soil as stable manure has, but since they contain much less plant food, they probably would have about half the value of manure as a mulch,

"For mulching trees even fresh hops are suitable for top dress-While they rot somewhat slowly in the air, if they are worked slightly into the surface of the soil as tillage is made

around trees, shrubs, etc., they will make a good mulch even from the beginning. For lawn purposes they ought to be composted until they are fairly well rotted. You can decompose them most quickly if you mix them about equal parts with manure. They will not only rot much more quickly in the manure, but they will also absorb a great deal of the soluble plant foods that otherwise would leach out of the manure and be lost. will also tend to catch and hold some of the nitrates in the manure which will otherwise break up and be lost into the air. So the mixing of equal parts hops and manure will not only decompose your hops and get them into good condition, but will also economize the manure used by absorbing most of what would otherwise be

L. P. JENSEN, St. Louis, Mo.

In answer to "Pelham, New York," p. 199, April issue, I think he may use spent hops from breweries with every prospect of success. Especially for mulching newly planted hardy plants in beds and borders, or ornamental shrubs, the spent hops will be serviceable. They conserve the moisture in the soil and keep the roots cool during a hot spell. It may interest him and others to know that a firm in London, England, derives a considerable income from the sale of "Hop Manure," which is simply spent hops that have been "treated" with certain chemical fertilizers. A good fertilizer should contain nitrogen, phosphoric acid and potash, but the mixing of these calls for knowledge and care. The spent hops can be gradually worked into the top-soil and so furnish organic material. They are excellent for rose beds, but if used liberally it is best to rake off as much as possible late in the season, as they tend, after a year or two, to lighten the soil too much. Though these hops smell so sour, they do not seem to transmit their sourness to the soil. But if the soil should become sick or out of sorts, dress the surface with slaked lime at the rate of 4 ozs. DAVID DUNLOP, New York. per sq. yd.

Having had my peach crop ruined the last two seasons by late spring frosts, I have decided to experiment by burying 25 pounds of ice about the roots of my trees, in the expectation that this will retard budding until the danger of frost is over. If any of your readers have ever attempted a similar experiment I would appreciate hearing of their results, or of any other method that might hold the trees from budding until after all danger of frost is past.

Oklahoma.

Surely that is a very novel experiment that "A. C. S., Oklap. 199, April number, suggests for checking the growth of his peach trees, which, he says, have been injured the past two years by late spring frosts. Let him try it with a few and tell us how it acts. But I would prophesy that he will find it as troublesome and laborious as using smudge fires, which is one of the preventives of spring frosts, and of which he has doubtless heard. If not, the Gardeners' Chronicle will enlighten him before another spring arrives. Perhaps "A. C. S." has exceptionally early varieties, and his plantation may be on low lying record. Event of the troop ally are in the situations. The cold ground. Frost gets trees always in such situations. The cold water cure might be tried if the trees are caught by frost, i. e., early in the morning after a frost, spray the trees with cold water before the sun strikes upon them. This helps to thaw out the frost, for it is the sun, striking on the frozen buds, that does the damage really, as the sudden expansion of the tissues ruptures them. Fighting the frost, however, is not an easy job. He should remember, moreover, that even if the roots are held in check, growth can start in the branches. W. RICHARDS, Ohio.

### Of Interest to Estate Owners

The National Association of Gardeners maintains a Service Bureau which is at the disposal of all who may require the services of efficient gardeners in their various capacities.

The association seeks the co-operation of estate owners in its efforts to secure opportunities for those engaged in the profession of gardening who are seeking to advance themselves. It makes no charge for services rendered. It endeavors to sup-ply men qualified to assume the responsibilities the position may call for.

Make your requirements known to

M. C. EBEL, Sec'y, National Association of Gardeners, Madison, N. J. 

#### NATIONAL ASSOCIATIONS

National Association of Gardeners.

M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st., N. Y.

American Carnation Society.

A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society.

L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society.

A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society.

B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society.

II. A Buryard, secretary, 40 West 28th Florist Exchange Hall. st., N. Y.

Chrysanthemum Society of America.

Charles W. Johnson, secretary, Morgan Park, Ill.

Women's National Agricultural and Horticultural Association.

Miss Margaret Jackson, secretary, Englewood, N. J.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society.

W. G. Carter, secretary, Bernardsville, N. J. First Ment) every mouth, Horticultural III. 7. (1), in . Bernardsville, N. J.

Boston Gardeners' and Florists' Club.

William N. Craig, sceretary, Brookline, Mass.

Third Tuesday every month, Horticultur-al Hall, Boston, Mass., 8 p. m.

Cleveland Florists' Club.

Frank A. Frachev, secretary, 95 Shaw avenue, East Cleveland, Ohio.

Second Monday every month, Hollenden Hotel, Cleveland, Ohio.

Cincinnati Florists' Society.

Alex. Ostendorp, secretary, Cincinnati, Ohio. Second Wednesday every month, Jabez Elliott Flower Market.

Connecticut Horticultural Society.

Alfred Dixon, secretary, Wethersfield, Conn. Second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Detroit Florists' Club.

R. H. Weas, secretary, 827 Camield avenue. Detroit, Mich.

Third Monday every month, Bemb Floral Hall

Dobbs Ferry Gardeners' Association.

B. Harms, secretary, Dobbs Ferry, N. Y. Last Saturday every month.

Dutchess County Horticultural Society. Falls, N. Y.

May and June, Poughkeepsie, N. Y.

Elberon Horticultural Society.

George Masson, secretary, Oakhurst, N. J. First Monday every month, Fire Hall, Elberon, N. J., S p. m.

Essex County Florists' Club.

John Crossley, secretary, 37 Belleville avemue, Newark, N. J.

Third Thursday every month, Kreuger Anditorium.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass. Second Tuesday every month.

Florists' and Gardeners' Club of Rhode Island

William E. Chapell, secretary, 333 Branch avenue, Providence, R. L.

Fourth Monday each month, Swartz Hall

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Gwynn Falls Park.

Sta. F. Baltimore, Md. Second and fourth Monday every month,

Gardeners and Florists of Ontario.

Geo, Douglas, secretary, 189 Merton street, Toronto, Canada.

Third Tuesday every month, St. George's Hall.

The Horticultural Society of New York.

Geo. V. Nash, secretary, Bronx Park, New York City.

Monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. First and third Saturday every month, Oct. to April; first Saturday every month, May to Sept., Horticultural Hall.

Lenox Horticultural Society.

G. H. Instone, secretary, Lenox, Mass. First Saturday every month.

Los Angeles County Horticultural Society. M. J. O'Brien, secretary, Mt. Kisco, N. Y. Hal, S. Kruckeberg, secretary, Los Angeles, Cal.

First Tuesday every month.

Massachusetts Horticultural Society.

William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society.

Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Minnesota State Florists' Association.

Gust. Malmquist, secretary, Fair Oaks Minneapolis, Minn. Third Tuesday every month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J.

Fourth Friday every month, Red Bank. N. J

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Society.

Second Wednesday every month except Edward J. Reagan, secretary, Morristown, lay and June, Poughkeepsie, N. Y. N. J.

Second Wednesday every month, except July and August, 8 p. m., Madison, N. J.

Nassau County Horticultural Society.

Harry Jones, secretary, Glen Cove, N. Y. Second Wednesday every month, Pembroke Hall, 7 p. m.

New Bedford Horticultural Society.

Jeremiah M. Taber, secretary, New Bedford, Mass.

First Monday every month.

New Jersey Floricultural Society.

Geo. W. Strange, secretary, 216 Main street, Orange, N. J.

First Monday every month, Jr. O. W. A. M. Hall., 8 p. in.

New London Horticultural Society.

John Thumphrey, secretary, New London, Conn.

Second Thursday every month, Municipal

New Grleans Horticultural Society.

C. R. Panter, secretary, 2320 Calhoun street, lew Criticus, La.

Third Thursday every menth, Association of Commerce Bldg.

Newport Horticultural Society.

Wm. Gray, secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club.

John Young, se icca, y. 74 W. 28th street, New York.

Second Monday every month, Grand Opera House.

North Shore Horticultural Society.

Leon W. Carter, secretary, Manchester, Mass

First and third Fridays every month.

North Shore Horticultural Society.

E. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society.

Third Thursday every month, except June to August, at 8 p. m.; December to February, 3 p. m.

Oyster Bay Horticultural Society.

A. R. Kennedy, secretary, Westbury, L. I. Fourth Wednesday every month, Oyster Bay, N. Y., 7:30 p. in.

Pacific Coast Horticultural Society.

W. A. Hofinghoff, secretary, 432 Phelan Bldg., San Francisco, Cal.

First Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society.

Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month.

Paterson Floricultural Society.

Sebastian Hubschmitt, Jr., secretary, 61 Seventh ave., Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society.

Herbert G. Cottan, secretary, Wappinger Morris Country Florists' and Gardeners' David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

Third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut st., Paterson, N. J.

First and last Friday every month, Working Man's Institute, Paterson, N. J.

Philadelphia Florists' Club.

David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

First Tuesday every month, Horticultural Hall, 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. First Tuesday every month, Fort Pitt

Rhode Island Horticultural Society.

E. K. Thomas, secretary, Box 180, Kingston, April to November. August excepted.

Third Wednesday\_every month, Public Library, Providence, R. I.

Rochester Florists' Association.

H. R. Stringer, secretary, 47 Stone street, Rochester, N. Y.

Second Monday every month, 95 Main street, East.

Shelter Island Horticultural and Agricultural Society.

First and third Thursdays every month.

Southampton Horticultural Society. Julius W. King, secretary, Southampton. N. Y.

First Thursday every month, Oddfellows Hall.

Tacoma Florists' Association.

F. H. Atchison, secretary, South 50th and East F street, Tacoma, Wash. Third Thursday, Maccabee Hall, 11th and C streets.

Tarrytown Horticultural Society.

E. W. Neubrand, secretary, Tarrytown, N. Y.

Last Tuesday every month, 7:30 p. m.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y. First Wednesday every month.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington, D. C.

First Monday every month.

Yonkers Horticultural Society. Thos. Mahoney, secretary, Yonkers, N. Y. First Friday every month, Hollywood Inn., 8 p. m.

Westchester and Fairfield Horticultural Society.

J. B. McArdle, secretary, Greenwich, Conn. Second Friday every month, Doran's Hall. Greenwich, 8 p. m.

#### GARDEN CLUBS

International Garden Club.

Miss Mary M. Kearney, secretary, 123 East 53rd street, New York. Club House, Bartow Mansion, Pelham Bay Park, N. Y.

The Garden Club of America.

Mrs. J. Willis Martin, president, 1721 Locust street, Philadelphia, Pa.

The Garden Club of Alma, Mich.

Twice a month at members' residences.

The Garden Club of Alleghany County, Pa. Mrs. F. H. Denny, president, Sewickley, Pa.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich. Miss Annie Condon, secretary, 920 University avenue.

The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle, secretary, Gladstone,

N. J.
Second and fourth Thursdays, middle of

The Garden Club of Cleveland, Ohio. Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Mrs. F. K. Holister, secretary, East Hampton, N. Y.

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood, N. J.

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob, Conn. At members' residences.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson

P. O., Md. First and third Thursdays, April to December at members' residences.

The Gardeners of Mont. and Dela. Counties, Pa.

Miss Elizabeth D. Williams, secretary, Haverford, Pa. At members' residences.

The Weeders' Club, Pa.

Miss Ellen Winsor, secretary, Haverford,

First and third Wednesday at members' residences.

The Garden Club of Lake Forest, Ill. Mrs. Tiffany Blake, president, Lake Forest, ĬII.

The Larchmont Garden Club, N. Y. Mrs. Edgar Park, secretary, Larchmont, N. Y. First Thursdays.

The Garden Club of Lawrence, L. I. Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass. Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York. First and third Mondays, June to October at Lenox.

The Garden Club of Litchfield, Conn. Mrs. Henry S. Munroe, secretary, 501 W. 120th street, New York.
Second Friday, June to October at Litch-

The Garden Club of Michigan. Miss Sarah W. Hendrie, secretary, Grosse Pointe Farms, Mich.

At members' homes. Two Spring and one Fall Shows. Fifty-third street, New York. ton, L. I.

The Millbrook Garden Club, N. Y.

Mrs. E. J. Lamb, secretary, 803 State street. Mrs. Keyes Winter, secretary, 125 E. 78th Twice a month at members' residences.

Meet at Millbrook, Dutchess County, N. Y.

The Bedford Garden Club, N. Y. Mrs. Benjamin W. Morris. secretary, Mt. Kisco, N. Y.

The Garden Club of New Canaan, Conn. Mrs. Francis H. Adriance. secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I. Miss Dorothea G. Watts, secretary, Newport, R. I.

Annual Meeting, August. Others when called. Five monthly summer shows.

The Newport Garden Club. Mrs. Chas. F. Hoffman, president, 620 Fifth avenue. New York.

The Garden Club of New Rochelle, N. Y. Mrs. Lucius W. Hitchcock, Premma Point Park.

Members residences and Public Library.

The Garden Club of Norfolk, Conn. Philemon W. Johnson, secretary, Norfolk, Conn.

Second Wednesday each month at Public Library.

North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa. Miss Ernestine A. Goodman, secretary, Chestnut Hill.

The Garden Club.

Mrs. Aubrey Pearre, Jr., secretary, Pikesville. Md.

The Garden Club of Ridgefield, Conn. Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York.

Twice monthly at Ridgefield. Also exhibitions.

Rumsen (N. J.) Garden Club. Mrs. Howard O. Borden, secretary, Rumsen, N. J.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md.

The Garden Club of Rye, N. Y. Mrs. Samuel Fuller, secretary, Rye. N. Y. First Tuesdays, April to October. Also special meetings and Flower Shows.

The Garden Club of Seabright, N. J. Mrs. H. L. Cranford, secretary, Seabright, N. J.

The Shedowa Garden Club, New York.
Miss Mary Young, secretary, Garden City,
N. Y.

Second Wednesday each month at members' residences. Vegetable and flower shows, June and September. Correspondence with other clubs invited.

Short Hills Garden Club, N. J. Mrs. C. H. Stout. secretary, Short Hills, N. J. Weekly at Short Hills Club House. Flower Shows April and June, and annual Dahlia Show.

The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W. 33rd street, New York.

Twice a month in summer at Southamp-

er in the state of 
The Staten Island Garden Club, N. Y. Mrs. J. Harry Alexander, secretary, Rosebank, S. I.

Twice a month. At members' homes, Winnetka, Ill,

The Garden Club of Trenton, N. J. Miss Anne MacIlvaine, secretary, Trenton, N. J.

Bi-monthly meetings at members' residences.

The Garden Club of Illinois. Mrs. William G. Hibbard, Jr., secretary, Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.
Mrs. Morris Rutherford, secretary, Warrick,

Orange County, N. Y.

Warrenton Garden Club, Virginia. Mrs. C. Shirley Carter, secretary, Warrenton, Va.

#### HORTICULTURAL EVENTS

Fourth National Flower Show, under the auspices of the Society of American Florists and Ornamental Horticulturists, Philadelphia, Pa., March 25 to April 2, 1916.

International Flower Show, Grand Central Palace, New York, 1916.

American Sweet Pea Society, Special Show, Panama-Pacific International Exposition, San Francisco, Cal., June 4, 1915. Annual Sweet Pea Show, Newport, R. L. July 8- 9, 1915,

American Gladiolus Society, Annual Show, Newport, R. J., August 18-19, 1915.

Chrysanthemum Society of America, Annual Show, Cleveland, Ohio, November 10-14, 1915. Special Show, San Francisco, Cal.

Cleveland Flower Show, Coliseum, Cleve-Iand, Ohio, November 10-14, 1915.

Connecticut Horticultural Society, Spring Flower Show, June 10. Annual Dahlia Show, September 22-23, 1915.

Horticultural Society of New York, Annual Fall Show, November 4.7, 1915.

Lenox Horticultural Society, Summer Show, Lenox, Mass., July 27-28, 1915.

Massachusetts Horticultural Society, May Exhibition, Horticultural Hall, Boston, Mass., May 15, 1915. June Exhibition, June 5-6.

Nassau County Horticultural Society, Rose Show, Nassau Country Club, Glen Cove, L. L., June 10, 1915. Dahlia Show, October 7. Fall Show, October 28-29. Dahlia and Fall Show will be held in Pembroke Hall, Glen Cove, N. Y.

New Bedford Horticultural Society, Peony Show, latter part of May. Rose Show in June. Dahlia Show in September. Chrys

> G. D. TILLEY Naturalist

"Everything in the Bird Line from a Canary to an Ostrich'

Birds for the House and Porch Birds for the Ornamental Waterway Birds for the Garden. Pool and Aviary Birds for the Game Preserve and Park

I am the oldest established and largest exclusive dealer in land and water birds in America and have on hand the most extensive stock in the United States.

G. D. THLLEY. Naturalist. Box 10. Darien. Conn.

anthemum Show in November. New Bedford, Mass.

New London Horticultural Society, Rose Show, June 22. Chrysanthemum Show, November 3-4, 1915. New London, Conn.

Newport Garden Club and Newport Horticultural Society, Midsummer Show, August 18-19, 1915. Newport, R. I.

New Jersey Floricultural Society, Dahlia and Vegetable Show, Orange, N. J., October 4, 1915.

Oyster Bay Horticultural Society, Spring Show, June 11. Dahlia Show, October 5-6. Chrysanthemum Show, November 2. Oyster Bay, N. Y.

Southampton Horticultural Society, Annual Flower Show, July 28-29, 1915. Southampton, N. Y.

Westchester and Fairfield Horticultural Society, Summer Show, Town Hall, Greenwich, Conn., June 18-19, 1915. Fall Show. Stamford, Conn., September, 1915.

#### NASSAU COUNTY HORTICULTURAL SOCIETY.

The regular monthly meeting of the Nassau County Horticultural Society was held at Pembroke Hall, Glen Cove, Wednesday, April 14, President Westlake presiding.

The Euchre, held under the auspices of this Society, on April 8, was reported to have passed off successfully in every way, great credit being due the committee in charge for their work and the very able manner in which they conducted the proceedings.

It was agreed to hold three shows during the coming season, summer show to be held in the week of June 6; Dahlia show October 7: Fall show October 28 and 29. Offers of special prizes for the fall show were received from the following: Hitchings & Co., W. E. Marshall & Co.; Stump & Walter Co.; Vaughan's Seed Store; Pino Lyplot Co.; John Wilk. Weber & Don; Burnett Bros.; Bon Arbor Co.; Harry A. Bunyard Co.; J. M. Thorburn & Co.; Peter Henderson & Co.; C. H. Lotty; Julius Rochas Co.; Lord & Burnham; Pierson U Bar Co.; Cottage Gardens Co.; Casters Tested Seeds, Inc., also from F. Edwards, W. R. Kinnear, Rev. J. W. Gammack, E. M. Underhill and Kopler Bros., Glen Cove.

Frank Honeyman was awarded 1st prize for the best vase of Roses (mixed). hibits for next meeting will be 3 heads of lettuce, 3 heads of cauliflower and 1 vase of outdoor flowers

> JAMES GLADSTONE. Corresponding Secretary.

#### NEW LONDON HORTICULTURAL SOCIETY.

New London Horticultural Society held its regular monthly meeting in the Council (hamber of the Municipal Building, State street, Thursday, April 8. After the usual business routine Professor E. H. Jenkins gave a very helpful and instructive address upon "Fertilizers in the Orchard," outlining the way to best use the chemicals and farmvard manure upon apple and peach trees, making special mention of the sowing of cover crops for turning under to enrich the soil. Also making study of certain chemical manures on certain trees and to follow up results of same as to which was most beneficial for good results on the different applications to those trees. A good discussion followed among the members. Mr. Jenkins was given a rising vote of thanks for his able paper. The attendance was small, owing chiefly to another important meeting at Norwich, to which several

# Shorburn's Seeds

VERY large number of our customers grow flowers and vegetables for profit. Such customers cannot afford to run risks when purchasing seeds and bulbs, for the value of the crop makes the cost of seed of little importance by comparison.

We have a small book about ourselves and our record in the seed business, which extends back more than a hundred years: to the "Days of Washington and Jefferson."

We should like to send you a copy of this and a copy also of our 1915 Catalogue if you have not yet received vours.

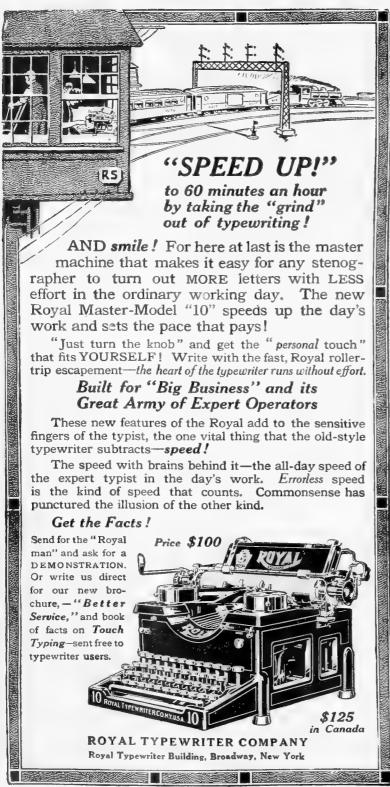
It will soon be tune to talk about bulbs. If you are not on our mailing list send us your name and address that you may receive our Bulb Catalogue when issued. It will be of unusual interest this year.

#### J. M. THORBURN & CO.

Since 1802 53 Barclay St., through to 54 Park Place NEW YORK







of the members had gone. A beautiful display of Schyanthus in pots was exhibited by John Maloney and Stancy Jordan. Three new members were voted into the Society. Messrs, Jordan, Robinson and Maloney gave brief reports of their visit to the New York Flower Show. The next meeting of the Society will be neld May 13, and it is hoped "Mr. Mason of Farmington, Conn.," will give a paper on Perennials. STANLEY JORDAN.

### THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

attendance of members at the monthly meeting of this Society was very large and represented a goodly percentage of the entire membership. President W. J. Sealey was in the chair. Six new members were elected, and as many more new names were proposed for membership in the Society. A magnificent display of flowers and plants were staged on account of the prize offered by Mr. A. L. Ricards for the best exhibit at this meeting. The prize was won by Mr. Robert Williamson, with a grand specimen orchid plant, Coelgyne Cristata. The thanks of the Society were accorded the other exhibitors, as well as the judges. Awards as follows: (elsia Cretica, from John Andrew, vote of thanks; Adiantum Williamsi, from James Foster, honorable mention. This was a very fine specimen of this variety. Specimen plant. Pelargonium, from Robt. Williamson, vote of thanks; pair et spermen plants of Rhododendrons, "Pink Pearl," from P. W. Popp, honorable mention; vase of Antirrhinum in variety, from Alex. Geddes, honorable mention; collection of Stocks from Peter Cruse, honorable mention; display of Carnations, "Benna," "Sunburst," roses from Robt. Grunnert, vote of thanks; display of Tulips in variety, from Emil Leonne, vote of thanks; specimen Azalea, from Louis Wittman, vote of thanks; a beautiful specimen Orchid plant in 5-inch pot of Dendrobium Thrysiflorum, from the Geo. E. Baldwin Co., received an honorable mention. The display was a credit to the members. The exhibition committee of the summer show also fall show, were appointed, as well as the managers of each exhibition. The summer exhibition will be held in June, at Greenwich, Conn. The following have been appointed to serve: Robt. Williamson, Robt. Grunnert. Wm. Whittin, John Andrew, P. H. Flaherty, Alfred Nicolls, all of Greenwich, Conn.; Manager, William Smith, Portchester, N. Y. Fall show, to be held in November, at Stamford. Conn., the following have been appointed: James Foster, Anton S. Peterson, John T. Burns, Abraham Wynne. Alex-Geddes, Owen A. Hunwick, all of Stamford, Conn.: Manager, Henry Wild, of Riverside, Conn. This Society is at all times endeavoring to add attractive features to interest the public, for whose benefit these exhibitions are arranged. P. W. POPP, Sec'y..

### CONNECTICUT HORTICULTURAL. SOCIETY.

The regular bi-monthly meeting of the Connecticut Horticultural Society was held in the County Building, Hartford, at 8 o'clock, President Warren S. Mason officiating as chairman. Plans were made for the Spring Flower Show, to be held Tuesday. June 10, the proceeds to be divided with the Union for Home Work, a charitable society. This spring show will be held in Unity Hall, on Pratt street.

There was an exceedingly fine exhibit of pansics staged by John C. Willard, of



#### THIS RAIN MACHINE WATERS 2,500 SQ. FT. COSTS ONLY \$11.75

COSTS ONLY \$11.75

IT is 50 feet long and will uniformly water 2500 square feet. Spray talls in a gentle mist and will not harm the most defreate plants. Does not pack the soil. Made of galvanized iten and blass. Will not first out, Good for a lifetime. Is portable. Very simple to put up. Easy to discounce t and move about. Can be attached right for your regular hose. 100 foor Portable. The watering 5,000 square feet, osts but \$23. Of we will jurn shiepapiment for an entire acre for \$1.25. It remit fame is sent with order, freight will be prepare east of Miss seepil Richer. So why set still and see your garden dry up, when for so little von can get a complete. Portable Skitnier System Ram, Machine? Send for Portable Lines," catalog.

LAWN MIST SPRAY

#### LAWN MIST SPRAY

Here's a spray that talls like the dows of heaven. It throws the next up straight in the air and on both sides of the page. Equipped with wheels, so location can be easily no ved without your getting all wet. Two sections can be connected to fit the shape of your grounds, or to water right around the corner. It will cover a width of 18 feet. Send for Lawn Mest Booklet.

# SKINNER YSTEM

OF IRRIGATION

THE SKINNER IRRIGATION CO. 229 Water Street Troy, Ohio

### IRRIGATION

Pipe, Fittings and Valves

Equip your plant with a complete set of tools for Cutting, Threading and Fitting.

Stock and Dies, Wrenches, Vises, Cutters, etc., complete, \$9.00 per set.

Write for Circular

JOHN SIMMONS CO. 110 Centre St., New York

English to the the state of the

THE GARDENERS' CHRONICLE

IS A JOURNAL OF USEFUL TECHNICAL KNOWLEDGE FOR THE ADVANCED AMATEUR. SUBSCRIPTION, \$1.50 A YEAR.

Wethersfield, John F. Huss, superintends ent of the James J. Goodwin Estate, exhibited a rare speciman plant, Australian Glory Pea (Clianthus Dempieri). The plant attained a height of about three feet and had six deep red blooms with black centers. Mr. Huss dilated on the cultivation of this plant, explaining the necessity of using extreme care in every detail of its growth to the arrival at maturity, and that it was his ambition to raise about six such specimens and then he would be content to tackle another such delicate operation. President Warren S. Mason, superintendent of the Pope Estate, Farmington, staged a fine collection of spring flowers: Narcissus, Golden Spur, Victoria and Von Sion, Hardy salvia Gregii, Grape Hyacinth, Italian Hyacinth, and Dutch Hyacinths, "May," flesh color: "Gertrude," a rose pink, and "King of Blue," a deep purple. In this collection white Tulips, Banksia rose, and Spuills. The combined exhibits made an excellent showing. President Mason named Alexander Cumming, Junior, Ed. A. Brassill and A. Righenzi judges, and they awarded the pansies a certificate of merit; the spring flowers a first-class certificate, and the Australian Glory Pea a first-class certificate, which was duly ratified by vote of the members. The judges also received a hearty vote of thanks. One new member was elected.

The next meeting will be held May 14, and will be Darwin Tulip night.

ALFRED DIXON. Secretary.

#### THE HORTICULTURAL SOCIETY OF NEW YORK.

An exhibition of plants and flowers was held on Saturday and Sunday, May 8 and 9, in the Museum building, New York Botanical Garden, Bronx Park. The following is a list of the prize winners.

#### Open to All.

Collection of herbaceous plants (ieo. D.

Barron, Jas. Linane, gardener, second. Collection shrubs and trees T. A. Havemeyer, A. Lahodny, gardener, first: F. R. Pierson Co., second.
Collection tulips -Mrs. H. Darlington, P.

W. Popp, gardener, first: F. R. Pierson Co.,

Collection Narcissus-Geo. D. Barron. first; Mrs. Ethel Anson S. Peckham, second. 24 vases cut orchids Lager & Hurrell. first.

#### Non-Commercial Growers.

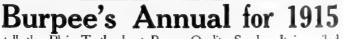
Collection bulbous flowers-Mrs. H. Darlington, first.

12 vases orchids-Mrs. H. I. Pratt, A. J. Manda, gardener, first.

6 Calceolarias-Mrs. F. A. Constable, Jas. Stuart, gardenere, first; Geo. D. Barron. second.

Special prizes-Geo. D. Barron, for vase Gladiolus and vase of carnation Alma Ward; F. C. Littleton, Samuel Batchelor. gardener, vase of carnation Baroness de Brennen, diploma; Geo. Schlegel, S. G. Milosy, gardener, diploma; Wm. Shillaber, J. P. Sorenson, gardener, vase of Passiflora Banksii; Mrs. M. Darlington, three plants Spiraea Rubens, and basket of pansies.

GEORGE V. NASH, Secretary.



tells the Plain Truth about Burpee-Quality Seeds. It is mailed free. Write for it today,—"Lest you forget." A postcard will do. W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia.



Plasts are avia tings or need to tractile 6. The species from the splendid time to apply that the alphant freed, Kaorin, Rand Lettilizer (RALF). Top dress your awn with it, dig it in also in two filowers, vegetables, shrubbers, it to be deep laints that they may have strength and vitality, and they will come through the summer strong and braitin. Ore 1 and will tertilize 5t square feet, or a plot 10x5 feet.

### RADIUM FERTILIZER (Plant Food) "Makes Things Grow"

contains Nitrogen, Phosphoric Acid, Potash and Rash in Heiment, Radium has an influence described by scientists every sinual in its effects upon vegetation to the ultra-violet rays of the sim, and it applies to growing things is the most important discovery

### HOW TO GET RADIUM BRAND FERTILIZER (R. A. F.)

Rahum Hari I (ctinate) (R. V.)
meets a need among thousands of
profile who go v things in a sin ll
way, and want a concentrated plant
food in handy form. Your dealer
probably has it; if not, we will send,
prepaid, any of the following. East,
of the Mississippi River. Beyond add
5c. lb.
12 or can \$ 25

12 oz, can, \$ .25 2 lb. can, \$ .50 5 lb. can, \$1.00 10 lb. can, \$1.75 25 lb. can, \$3.75

Please mention dealer's name in

Permanent territorial representatives wanted to handle and introduce  $R_{\rm h} \dim (\mathbb{R}^n, \mathbb{A}, F_*)$ . Write us for particulars.

#### RADIUM FERTILIZER CO. 208 Vanadium Building Pittsburgh, Pa.

Free Becklet Many interesting facts about the improvement e1 Lawns, Plants, Garders illustrated. Tells makes Things Greek.







#### STEEL STANDARD SETTEE

Manufactured in any length INDESTRUCTIBLE - COMFORTABLE Write for prices, advising requirements

Steel Furniture Co-GRANDRAPIDS, MICH.

rmnmminin **Francisco** en 1780

#### BEAUTIFUL WATER LILIES

to Maria and a standistribution of a standistribution

Tricker's Water Lillos were awarded a gold medal at the Inter-lational Show, New York, Meich 17th last. Write for booklet con-taining full description and directions for garden culture, as well as for ponds, fountains, basis, etc.

WM. TRICKER, Box W. Arlington, N. J.

### IMPORTED ORCHIDS

If you contemplate buying imported stock this year write to me.

JOSEPH MANDA, Orchid Expert, Seedsman and Florist WE3T ORANGE, N. J.

### Chrysanthemums—Carnations—Roses

J. M. PHERIKARIKO KRIKATA AMBORINA MINIKA BARA JARAH MAZINIKA KARATA AMBARAKA BARATA B

NOVELTIES FOR 1915

If you did not receive our 1915 price list write us

Elmsford Nurseries—Scott Bros., Elmsford, N. Y. 

#### ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N. J.

#### termininghing 5.1 o. 1.5 oo 1.5 oo 1.6 oo 1.6 oo 1.7 oo HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

#### D. HILL NURSERY CO.

The consideration and the limit with the contribution of the contr

com to the production of the mode

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

Rose Growers With a Background of Fifty Years' Experience

The Conard & Jones Co. West Grove, Pa.

#### THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES NURSERIES.

There you will find all kinds and you can take your pick from the est that is grown. Maximum Quality at Minimum Prices. Write V. R. Cheas, Manager

THE PALISADES NUPSERIES, INC., SPARKILL, N. Y.

#### Manufacturer of GREENHOUSE SHADING E. A. LIPPMAN

6 HIGH STREET, MORRISTOWN, N. J.

In dry form, \$1.00 a package, delivered at any address. Will make one gallon, sufficient for 800 square feet.

#### HARRY BALDWIN

Manufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS

MAMARONECK, N. Y.



#### PROTECT THE WREN A durable and attractive concrete box with removable lid.

\$1.50 ea., 6 for \$7.50 F.O.B.

#### THE BIRD BOX

Packed for Expressage, 7 lbs

West Chester, Pa.

Laterates to the contract of t



### The Improved Dodson Sparrow Trap

Help us get rid of sparrows and native song birds will return to our gardens. U. S. Dept. of Agriculture Bulletin advocates destruction of English Sparrows. Thousands of sparrows now being caught by this new improved Dodson Sparrow Trap. It works automatically all the time. Has a double funnel frap on left, an automatic drop trap on right; catches sparrows at both ends. No other trap like this. Dodson Price, 86 f. o. b. Chicago, To attract song birds get genuine Dodson Bird Houses. There are 20 styles.

Beautifully illustrated booklet tells How To Win Native Birds. It is free—write for it. Mr. Dodson, a Director of the Illinois Audubon Society, has been building Bird Houses for 20 years. Dodson Houses are proven successes in thousands of gardens. If you love birds get a sparrow trap and also one or several Dodson Bird Houses. Write for the free booklet today.

JOSEPH H. DODSON 732 Security Building CHICAGO, ILL.

### Rustic Cedar Bird Houses



#### Birds prefer Rustic houses

DI THIRE. THE LEW CO.D. IN THE DESIGNATION OF THE LABOR. THE PROPERTY OF THE LABOR.

We manufacture the following Bird Houses in sweet-smelling cedar wood: Woodpecker, bluebird, robin, wren, swallow, martin, chick-a-dee, flickers, nuthatches, titmice.

#### \$1.00 Each

We also have Rustic Bird Feeding Houses. Send for catalogue showing complete line of Bird Houses and Rustic Furniture.

Jersey Keystone Wood Co., Inc. Trenton, N. J.

> , the oracle of the Halling and the standard of the ensister of a second production of the second section of the section of the second section of the 
# Peafowl and Pheasants



 $\mathcal{A}lso$ Pheasant Eggs for Hatching

Stock guaranteed to be sound and non-related

IOHN W. TALBOT South Bend, Indiana

and at . . . 4 5.54 c ... c 6.50 c ... c 1.60 c ... 


### COMPETENT GARDENERS

I The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

 $\P$  Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

NEW YORK CITY



HEN it comes to Green-Houses, come to

General Offices and Factory-ELIZABETH, N. J.

New York 1170 Broadway

Boston 49 Federal St.

(())

#### Tree Owners and Tree Lovers

Will find much to interest and instruct

# **NEW ILLUSTRATED MAGAZINE**

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage Published quarterly by

#### THE FROST & BARTLETT COMPANY

26 Cortlandt St. TO MARKET THE REPORT OF THE PROPERTY OF THE PARTY OF THE (Suite 212)

**NEW YORK** 



A magazine devoted chiefly to the design of broad landscapes.

The home edition is devoted to the planning, civic improvement, and historic interests of Billerica, Mass. The North Shore-Illinois Edition advocates a fuller recognition of the landscape values and the need of a comprehensive plan for a clearly defined area north of Chicago.

The magazine will treat only incidentally of the landscape, gardening and architectural problems that are so thoroughly and efficiently covered by existing magazines.

> Subscription price, \$1.00 per year, for each edition

> > Address

BILLERICA, 1101-4 Tremont Bldg. BOSTON, MASS.

### Danger Signs in Trees! Heed Them A little decayed spot on

A little decayed spot on your tooth—what do you do? A knock in your automobile ergine what is your first thought? Large of small, the weak and decayed places in your trees should be treated by real Tree Surgery before it is too late. Real Tree Surgery is Davey Tree Surgery is mechanically perfect and scientifically emate. It saves trees. Real Tree Surgery is available only through

Davey Tree Surgeons

In order to safeguard vourself and vour trees and get service a permanent value, one direct to headon, tees. It won don't ere to experiment, it von want to save dual malignachtoniers and uresponsibles, it von want to save your trees there is one satiplical to go Dayee.

Write today for free examination of vour trees. Fearn their condition and acids from an expert senice without obligation. A kill to literature illustrating Dayee Tree Surgery.

THE DAVEY TREE EXPERT CO. 943 Elm St., Kent, Ohio

Three Sugar A Prince of the Interference to the Control of the Con



Have your trees examined NOW!

# These are the Greenhouses we erected in Prospect Park (Brooklyn, N. Y.)

eri mar, r - gms.m.m., umar r. . .

EACH HOUSE 24 x 133



This illustration shows the completed greenhouses in Prospect Park Painting, glazing and heating took but two weeks.

While the entire job was completed in six weeks from the day the contract was signed, it was our plans, our construction, our experience and expert staff, that made possible such thoroughly satisfactory greenhouses. Satisfactory not only from the artistic point of view, but also from the practical side. All Metropolitan Greenhouses give perfect satisfaction. Metropolitan service is at the disposal of anyone contemplating the erection of a greenhouse.

Special plans and specifications submitted without obligation.

WE GO ANY WHERE IN THE U. S. A.

### METROPOLITAN MATERIAL CO.

1396-1412 Metropolitan Ave., Brooklyn, N. Y.

# Bon Arbor Chemical Co.

CHEMINISTRA CHARLES TO A CONTROL OF THE CONTROL OF

PATERSON, N. J.

Manufacturers of

**BON ARBOR No. 1.** Soluble Plant Life. A most wonderful and invigorating food for all plants, indoor and outdoor.

BON ARBOR No. 2. Best dressing for your lawns

RADIX WORM ERADICATOR. Instantly removes worms from your Tennis Courts, Putting greens, etc.

ANT DESTROYER. Will remove all ants outside or indoors in a week's time. Be sure and try it.

**NATURAL HUMUS.** Is the best for making new lawns, gardens, etc.

Write for descripive catalogue and prices

### A Rose Trellis on Your Veranda

10, 10000000, 15000 1 10 100 120 130 1 1 1 100 1

or porch gives seclusion and lends beauty. A very little expenditure will greatly increase the attractiveness of your home. You will not have to buy new trellises every year or two if you take the precaution to buy

### "FXCELSIOR" RUST PROOF

Trellises, because they last many years. Exceedingly heavy dip galvanizing prevents rust. Excelsior Trellises afford best protection to roses, vines and perennial climbers. No injury to vines results when house is painted or windows screened. Trellis is easily detached, laid back and put in place again. We also make Excelsior Rust Froof Fences, Bed Guards and Tree Guards. Ask your hardware dealer and write for Catalog J.

WRIGHT WIRE COMPANY
Worcester, Mass,



TELEPHONE CONNECTION

## WILLIAM F. LEARY

a SHIRRER OF THE STEEL OF THE SEC.

SCIENTIFIC CARE OF TREES SPRAYING, PRUNING, CEMENTING

SPRAYING INSURES THE LIVES OF YOUR TREES
Contracts taken in any part of the United States
TREES MOVED

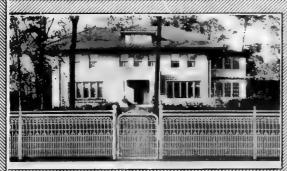
212 MAIN STREET, Y. M. C. A. NEW ROCHELLE, N. Y.

### Pulverized Sheep Manure From Big Feeding Barns No Adulteration-No Weed Seeds



THIS mark stands for the cleanest Sheep Manure in America—no pig manure, no adulteration—nothing but Sheep Manure, dried and pulverized, and all weed seeds killed. We guarantee it absolutely clean. Shipped in 100 lb, bags. Write for prices, delivered.

NATURAL GUANO CO., 805 River St., Aurora, Ill.



# CLONE-WALKE RNAMENTA Lawn and Park Fence

### FOR PUBLIC PARKS—COUNTRY CLUBS—PRIVATE GROUNDS

Harmonizes with the natural beauty of public parks or private grounds and affords substantial, lasting protection.

No matter how handsome your home, in city, town or country, Cyclone-Waukegan Fence will give it an added air of beauty and prosperity not possible with wooden fence.

#### CYCLONE WAUKEGAN FENCE

is built in various artistic designs, of heavily galvanized wire, closely and firmly spaced. It is easy to erect on wood or iron posts and adjusts itself gracefully to uneven ground.

We build park fence of various heights and designs to suit your special needs.

We manufacture also Flower Bed and Lawn Borders, Trellises, Tennis Court Back Stops, Tree Guards, etc.

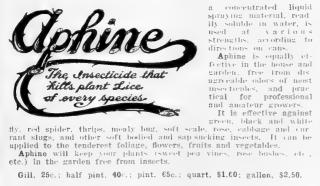
Handsomely Illustrated Catalog giving designs and prices, sent free on

CYCLONE FENCE COMPANY WAUKEGAN, ILL.

8.1.1.5c20000 c ...c111.c 1.1

Science is teaching that it is as essential to

from insect pests and the various fungi with which it is afflicted as it is to properly fertilize it.



Our Engineering De-

partment will co-oper-

ate with superintend-

ents of Parks and Pri-

vate Grounds, and

Landscape Gardeners.

We will be glad to assist in solving your

fence problems with-

out charge. 

concentrated liquid

Gill, 25c.; half pint, 40c.; pint, 65c.; quart, \$1.00; gallon, \$2.50.

a summer spray for hardy trees, shrubs and plants it is an effectivenedy against green, black and white dy, red spider, thrips, ly aphis, cottony maple scale, tulip scale, mealy bug, and all soft. The one part Scaline to forty to fifty parts water.

Scaline will rid your evergreens and shrubs of the red spider pest.

which has done so much havor to them recently.

For summer spraying, Scaline is recognized as a marked improvement over the old-fashioned kerosene emulsion; more effective and more economical. It mixes readily with water, contains no sediment, and can be applied with the finest spray nozzle.

Quart, 75c.; gallon, \$1.50; 10 gallons, \$10.00.

is a concentrated sulphur composition, used as a spraying neaterial, readily soluble in water, containing no sediment, and unlike Bordeaux mixture, and line and sulphur, does not stain the tehage, but cleanses it.

It is an infallible remedy for mildew, rust and wilt, aftering flowers, fruits and vegetables, and is used with much success by leading growers on young stock as a preventive against various blights, One gallon makes 50 gallons spraying material.

Half pint, 30c.; pint, 50c.; quart, 75c.; gallon, \$2.00.

a soil sterdig r and vermicide worms, maggets, root live and ants. Used one part to look building parts water, in rougally soaking the ground, it will protect your plants and lawns against rayages under the soil. id lawns against rivages under the soil Gill, 25c.; half pint, 40c.; pints, 65c.; quart, \$1.00; gallon, \$3.00.

These products have the endorsement of leading como energy and provide a received and are governormended.

These products have the endorsement of leading como energy and plant a case procedure they are received.

For sale by the leading seedsmen throughout the country. If not obtainable in your community, send us your order direct and we will have it shipped to you from our nearest agency.

Aphine Manufacturing Co.

Son, realition of interness and equation is

MANUFACTURERS OF AGRICULTURAL CHEMICALS Madison, N. J.



### How Is It That You Have No Greenhouse?

THAT they are in the luxury class has long ago been exploded; so that surely cannot be the reason. Perhaps you think it requires a skilled gardener to run it and you don't know where to find such a man. You can promptly set aside that objection; because we are constantly in communication with good gardeners. If over the country; and without doubt we could put you be touch with just the man for your needs.

Mayhap you don't have a greenhouse because you think its construction is so out of the usual that you will have all kinds of trouble and bother in its building. But once

again you are mist deer, because we will, if you wish, do every scrap of the work for you, from the turning of the sol, to turning or the leaf, al. ready for your dowers. You hold us responsible for everything. It is case as buying the fully equipped automobiles of these lays.

Why don't you let us give you a price on a house like the source.

It were want to see theirs, you are beautily welcome to make G's Bartlet, Glass Garlens. A Peep Into Their

#### SALES OFFICES:

New York, 42d St. Bldg. Chicago, Rookery Bldg. Philadelphia, Cleveland, Franklin Bank Bldg. Swetland Bldg. Toronto—Royal Bank Bldg.

Boston,



#### FACTORIES:

Irvington, N. Y. Des Plaines, Ill.

St. Catherines. Canada



## **About The Gateways We Build**

RNAMENTAL gateways give an undeniable dignity and air of exclusiveness to a place, that to most of us is distinctly desirable. In our catalog we show an unusually large assortment of designs from the simplest to the most elaborate. But mostly the simpler ones.

SPORTEGIE

Fences are there to go with them; both in wire and iron.

2430 YANDES ST.

You will be interested in seeing the unclimbable fences that effectually police property.

We have a notion you will find in it pretty close to the fence or gateway you want.

The prices will encourage you.

',NTERPRISE IRON WORKS

Send for this catalog

INDIANAPOLIS, INDIANA

# COLUMBIA



# Double-Disc S

A new list of Columbia double-disc records—including the latest dance hits—goes on sale on the 20th of every month.

65 cents is the price of more than a thousand Columbia double-disc records! And in every class of music, too! Dance, vocal, instrumental and every record faultlessly recorded and perfect in its reproducing qualities.

Go to your nearest Columbia dealer. Today! He is waiting to play any one, or a dozen, you would like to hear. There are more than 4,000 Columbia records in the big Columbia record catalog. A complete library of music.

The Columbia Grafonola "De Luxe," as illustrated, is representative of the entire line of Columbia Grafonolas. At its price, \$200, it typifies the perfection of every Columbia as a musical instrument. Other Grafonolas from \$17.50 to \$500—and on easy terms if desired.

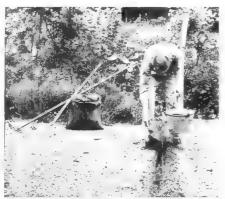


#### COLUMBIA GRAPHOPHONE CO.

Box E215, Woolworth Bldg., New York

TORONTO 365-367 Sorauren Ave Prices is Canada plus dicty. Creators of the Fillans-Machine Industry, Pioneers and Leaders in the Falking Machine Art. Owners of the Fundamental Patents. Dealer, and Prospective dealers write for a confidential latter and a new cipy of our book." Music Money."







ones your Rhododenators toom the Cadstern for years flowers. It is that the roots for hood small from Alphano are easier the parpose



# Vital Helps for Your Lawn Your Garden, Shrubs and Trees Secured by Using Alphano

OU must not think that, just because you had some fertilizer spread on your garden and spaded in, you can let it go without giving the plants further food; and expect anything like top notch results.

In the first place but a very small portion of the foods in the fertilizer actually reaches the roots, because it is next to impossible to mix fertilizer lumps and chunks up thoroughly enough with the soil. Besides after a few rains, most of the food value has been carried down in the soil below the roots and for all the good done, it might iust as well not be there.

Alphano, if sowed in the drill with the seeds, is right there where the roots are. Being finely granulated, it becomes a direct part of the soil and is readily available to

the roots. Or as a boost to the plants, it can be dug around the plants once or twice during the season. The results will be a gratifying surprise to you.

Then there are your shrubs, Rhododendrons and

voung trees; see that some is dug around them, and just witness the gladsome response.

On your lawn, more than likely you put the usual fertilizer and then had the best part of it raked off because of its unsightliness and choking of the grass. This being so, only the top roots were temporarily stimulated and when hot, dry weather comes, the grass will thin out and brown up.

What it needs right now is a good top dressing of Alphano, well raked in.

It will furnish food for the roots all summer long.

It will fortify your lawn and your garden against dry weather, because it absorbs five times its weight in moisture, acting like a huge sponge. It is odorless, so you can

use it without any objec-

tion, anytime, anywhere. It's low cost and long enduring benefits make it practical to use freely. Order some. Give it a fair trial. For further facts, send for the Alphano Book.











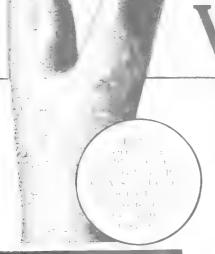




# 



11/1/201



# The fatal V-Shaped Crotch!

# Only real tree surgery can save a tree of this type from eventual destruction.

On nearly every place there are some trees of this weak crotched type. There is only one safe thing to do-have then examined and attended to at once. Every wind splits a weal crotch a little further. Decay eats its way from this split down through the trunk. It becomes weaker and weaker and thencrash!—the tree is ruined. See picture at left which is typical o millions of trees.

To neglect such trees is fatal. To put them in inexperi enced hands is equally so. They can be saved by real tree sur gery. As shown by the following letter-

#### Real Tree Surgery is Davey Tree Surgery

Davey Tree Expert Co., Kent, O. Gentlemen:

I want to tell you how pleased we are with the work done by your representa-

tive on the trees on this estate two years ago.
Unfortunately, these trees had been worked on four or five years ago by some New York concern. After their work had stood two or three years, it proved to be absolutely worthless. The decay had continued to eat its way behind the fillings and many of the fillings were broken and in bad condition, proving their work both unscientific and mechanically wrong.

Just about two years ago, we engaged your concern to do the work all over again. We were highly pleased with the work at the time because of its apparent perfection, both scientifically and mechanically. But, now, after a lapse of two years, I can say to you that this work done by your men is absolutely perfect. It is, in my opinion, a model of tree surgery. I cannot recommend it too highly nor express too strongly our appreciation of the great service rendered in this connection by your admirable corps of men.

JOHN T. BURNS, Supt. of the

JOHN T. BURNS, Supt. of the Miss C. A. Bliss Estate, New Canaan, Conn.

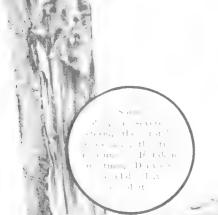
The V-Shaped Crotch is only one fatal weakness of trees. Many dangerous trees. conditions remain hidden—and can be discovered only by the trained eye of a real tr surgeon. Don't wait until it is too late to save your trees. Write today for free e amination by-

# Davey Tree Surgeons

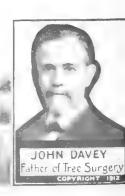
-learn their true condition and needs from this expert source without obligation. A for literature illustrating Davey Tree Surgery.

#### The Davey Tree Expert Co. 1043 Elm Street, Kent, Ohio

(Operating the Davey Institute of Tree Surgery) Accredited Representatives ererywhere



HAVE YOUR TREES EXAMINED NO.



# ROSES - ROSES - ROSES

ALL THE POPULAR VARIETIES IN SPLENDID FOUR-INCH STOCK

AMERICAN BEAUTY
OPHELIA

LADY HILLINGTON
WHITE SHAWYER

THE KILLARNEYS
SUNBURST

MRS. F. F. THOMPSON
SEPTEMBER MORN

ETC., ETC.

WRITE FOR PRICES ON WHAT YOU NEED

CHARLES H. TOTTY, MADISON, N. J.

# **BOBBINK & ATKINS**

WORLD'S CHOICEST NURSERY and GREENHOUSE PRODUCTS

GROWN IN AMERICA

Among the many attractions growing in our 300 acres of highly cultivated Nursery are large quantities of the following specialties:

#### PAEONIAS

The Peony, in its early stages was respected with awe, and its beauty associated with the gods Today, after ages of persistent effort, this wonderful flower is accorded its rightful place as King of Flowers. The beauteous torms, exquisite tints and shades, and the delicate fragrance of the newer varieties dely pictures or words. As producers we can often with pride a notable collection, and shall be pleased to give A COMPLETE LIST ON INQUIRY.

#### **IRISES**

While the Peony is magnificent with its majectic glors, the clusive and harmonious colors, blending in one flower, make the Iris a special favorite. In no other flower is there such wonderful color, harmony, and in form and texture the Iris out-rivals the orichid. The various sections will grow either in water or in very dry soil.

#### POT-GROWN STRAWBERRIES

Every garden no matter how small should have a strawberry bed. It is the earliest fruit, and being very prolific, fresh fruit, with the full flavor, can be gathered continually. Our collection represents the result of many years' trial.

The above are described and priced in our **Illustrated General Catalog No. 45**, mailed upon request. When requesting catalog please state in what you are interested VISITORS are made welcome to inspect our which is very important before placing orders.

"We Plan and Plant Grounds and Gardens Everywhere"

CORRESPONDENCE INVITED

NURSERYMEN RUTHERFORD, N. J. FLORISTS and PLANTERS

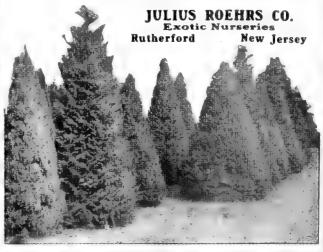
# Evergreen Trees

There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

#### Trees, Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs,
Greenhouse Plants and Orchids.



🕏 commonwell mente de la communicación de la composição 


# All Varieties Thoroughly Tested

-ста. постольнициянаявляющиминия на в заиния и св стании ва озглании на станавини на г. г. за станавини на станавини

T is the policy of Jas. Carter & Co. to thoroughly test every strain of flower or vegetable. Not until satisfactory results are shown by actual growing are they listed in the Carter Catalog.

That is why Carters Tested Seeds are so reliable and true to description.

If you have not examined the 1915 Carter Catalog—American Edition—write at once for your copy.

farters Tested Seeds

CARTERS TESTED SEEDS, INC. 111 Chamber of Commerce Bldg., Boston, Mass.

Branch at Seattle, Wash.

In Canada—133 King St. E., Toronto.

Branch of Jas. Carter & Co., Raynes
Park, England.

TREES & PLANTS

MEETIAN

For the summer home, the seashore property, or that corner which has not "taken hold," try

### potted plants for quick results

eroprostoromonomonomonomonomonomonomonomono i esperimente de la filia successiva est frecuminamente de la comp

Here are three desirable climbing roses—all with handsome foliage free from attack by insects or mildew—

Edgar Andreu, dark red flowers, twice as large as the Crimson Rambler.

Alberic Barbier, a beautiful double white.

Dr. Van Fleet, a beautiful blush rose, \$1.00 each.

Two-year plants, of sturdy character, should thrive under trying conditions.

Except where specially priced, 50c. each, \$3.50 for 10, \$25 for 100

THOMAS MEEHAN & SONS Box 65, Germantown, Philadelphia, Pa. We Design and Furnish

e italia manana katau milili manan katama malili mililinga manata mililinga manana at ser di enembra a si di m

# Plans for the Finest Landscape Work

If you are contemplating any extensive park or estate planting communicate with us on your requirements.

Our Nursery is located at Scarborough, N. Y., near the railroad station, comprising over fifty acres, and contains one of the choicest and rarest collections of shrubs and trees in the country. We have been awarded for the last three years, by the Horticultural Society of New York,

FIRST PRIZE FOR THE FINEST AND LARG-EST COLLECTION OF HARDY SHRUBS AND TREES.

We will take pleasure in sending our catalogue on request.

#### F. R. PIERSON COMPANY

Main Office and Post Office, Tarrytown, N. Y.

Telephone, Tarrytown 48



the Uptown Seed Store, 40 W. 28th Street, New

and a contract of the state of

TO A DESCRIPTION OF A TAX ASSESSMENT OF A PROPERTY OF A PR

York City, is one of the most easily reached in the city. Our telephone number is Madison Square, 5590. Write for our unique catalogue.

VISITORS WELCOME

HARRY A. BUNYARD CO., Inc. Seeds, Bulbs, Plants. Grass Seed Specialists



# DREER'S POT-GROWN STRAWBERRY PLANTS

The best varieties, both new and old, and best methods of planting to raise a full crop of strawberries next year are fully particularized in

#### Dreer's Mid-Summer Catalogue

Also Celery, Cabbage, and other vegetable plants. A select list of decorative plants, Palms, Ferns, etc.; Seeds of old-fashioned Hardy Perennials and other flowers for summer sowing, Seasonable Farm Seeds, etc.

Seeds, etc. Write today for a copy, FREE, and please mention this magazine.

HENRY A. DREER, 714 Chestnut St., Philadelphia, Pa.

# Pot-Grown Strawberries

מתוחשים בנו המונים במונים למונים במתוחות במינות במתוחות מונים במתוחות במתוחות מונים במתוחות בתוחות במתוחות בתוחות 
Ready for delivery. Write for Catalogue.

# Cold Storage Bulbs

We have in Cold Storage the following Bulbs for summer planting

#### LILIUM FORMOSUM

Bulbs 9 to 10 and 10 to 12 inches.

#### LILIUM GIGANTEUM

Bulbs 9 to 10 inches.

#### LILIUM SPECIOSUM MAGNIFICUM

Bulbs 9 to 11 inches

#### LILY OF THE VALLEY

Dresden and Berlin Pips.

Write for Catalogue and Prices.

#### W. E. MARSHALL & CO.

Seedsmen

CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A CONTRACTOR OF A

166 West 23rd Street

New York

Incorporated 1911

A. DESDUCED FOR CO. C. DRIVE DECIDENCE.

ANDREW K. KENNEDY, Pres. and Treas.

a constant of the second of th

# KENNEDY & HUNTER

**SEEDSMEN** 

SEND FOR BULB CATALOGUE

156 West 34th Street One block from New York

"ONLY THE BEST"

### COMPETENT GARDENERS

¶ The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

NEW YORK CITY

# Scheepers' Bulbs

Are conceded to represent the very highest quality procurable. If you are after quality, send a trial order and be among the First Prize winners. Special and complete list of late Tulips ready. Write for it.

#### JOHN SCHEEPERS & CO., INC.

Flowerbulb Specialists

2 Stone Street, New York

# **Cold Storage Bulbs**

	Doz.	100
Lilium Spec. Rubrum, 9/11	\$3.00	\$20.00
11/13	4.00	30,00
Lilium Spec. Mel. 3 9/11 Magnificum, 11/13		20.00 30.00
Lilium Spec. Album, 9/11	4.00	30.00
Lilium Long. Giganteum, 8/9		15.00 25.00

Lily of the Valley—Wedding Bells. Per 100, \$3; per 1,000, \$25.

We recommend shipments at frequent intervals to keep up a continuous supply of blooms.

For many customers we ship a small quantity each Monday.

#### POT GROWN STRAWBERRY PLANTS

For Outdoor Planting and Winter Forcing.

Send for Mid-Summer Catalog Now Ready

#### ARTHUR T. BODDINGTON, Seedsman

342 West 14th Street, New York

### The Contents---June, 1915

	Page		Page
Homewood, the Country Estate of R. B. Ward	263	Parks and Their Uses By E. A. Kanst	282
A Landscape Style for the United States .	266	The Economic Value of Birds	283
Making a Tree Comfortable	266	Win Back Our Native Birds	202
Park System of Portland, Ore., The Rose City	267	By Joseph H. Dodson Development Work of Utica, N. Y., Park	
Some Notable New Jersey Gardens	270	System	
The Moorings, Marion, Mass. H. F. Turner	272	A Unique Proposition	284
The Summer Care of Out Door Roses	272	Breeding and Rearing Peacocks	
Work for the Month of July Henry Gibson	273	By John W. Talbot	
		The Birds of Brookline, Mass	
Proper Culture of Strawberries		Queries and Answers	286
Improving the Lawn	274	Directory of National Associations	287
An Interesting Lilac Exhibit	274	Directory of Local Societies	287
See America First En Route to 'Frisco	276	Directory of Garden Clubs	287
Park Superintendents' Itinerary to San Fran-		Horticultural Events	289
cisco	278	Horticultural Society of New York Show .	289
Dedication of the National Rose Garden .	279		289
American Sweet Pea Society Show	279	Short Hills, N. J., Garden Club Show	290
The Cleveland Flower Show	279	New London Horticultural Society	290
The National Flower Show	279	Paterson Floricultural Society	290
National Association of Gardeners' Notes .	280	Morris County Gardeners' and Florists' Club .	290
Among the Gardeners	280	Oyster Bay Horticultural Society Show	291
American Association of Park Superintendents'		Connecticut Horticultural Society Show .	291
Notes	281	Westchester and Fairfield Horticultural Society	
Park Department Personals	201	Nassau County Horticultural Society	293

# STUMPP & WALTER CO'S MID-SUMMER CATALOG

Complete list of Best Varieties of Strawberry Plants
Celery, Cauliflower and Cabbage
Also complete list of Perennial Flower Seeds
Selected Strains of Pansies
Best Grades of Rubber Hose, Lawn Sprinklers and Requisites
Insecticides, Sprayers and other seasonable needs

If we do not have the pleasure of having your name on our list, please write, asking for catalog.

Stumpp & Walter 6 30-32 Barclay Street NEW YORK CITY

# GARDENERS' CHRONICLE

#### OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

JUNE, 1915.

No. 6.

# Homewood, the Country Estate of R. B. Ward

"Homew od" is located in the hills of Westchester County at Wykagl, an outlying district of New Rochelle, N. Y. Presenting, as it does in the accompanying illustrations, all the appearances of a completed country estate it may be said to be still in the state of development,

Huguenot settlers. The dwelling house stood on what is now the farm portion of the estate, a long, low house, siding off shingles rounding at the bottom, all dressed by hand. Mr. Schureman was a prosperous farmer and the owner of some excellent cattle, consisting of horses, cows

> and swine and a great variety of poultry, all of which attracted the marauders soon after the war began.

> Just prior to the Battle of White Plains, a detachment of Lord Howe's soldiers were quartered at Xew Rochelle, and with the lawlessness common to invaders, they con-

THE COUNTRY HOME OF R B WARD, WYKAGYI, X Y, SHOWING THE REAR , JEW OF THE MANSJON



THE PERGOLA AT THE ENTRANCE TO THE FRENCH FRUIT GARDEN AND HURBACHOUS GARDENS. THE GREENHOUSES ARE SEEN AT THE RIGHT.

for its owner, R. B. Ward, an enthusiastic horticulturist proposes to make "Homewood" the most ideal country estate that is to be found anywhere in the eastern states. It is already a most charming place, but when the contemplated plans are carried out for further improvement it will become a beauty spot.

The history of this property dates back to the Revolutionary days, for it is recorded to have been owned by one Jeremiah Schureman, whose wife was Magdalina De Veaux, of New Rochelle, a descendant of the French

sidered the farmers fair game for pillage. Mr. Schureman had already lost a considerable amount of horses and cattle, and one dark night overheard an attempt at driving off his stock. He opened the upper part of the old half door and called out, "I know who you are and will report you in the morning," With this, one of the men leveled his musket and shot Mr. Schureman, who fell over dead in his own doorway.

The home of Mr. Ward, a large mansion of pleasing architecture, built by him a few years ago, is situated



THE TERRACE COMMANOS A SWEEPING VIEW OF THE LAWNS, GARDENS AND FARM

3 THE OLD CASHIONED SUNKEN GARDEN. THE EXTERIOR OF THE BREAKFAST ROOM IS SELN IN THE GACKGROUND attention to this fruit garden and aims to make it the most perfect of its kind in the country

Adjoining the fruit garden an extensive herbaceous garden has been planted and both of these gardens are separated by the pergola from a stretch of velvety lawn which reaches out to the mansion. The entire grounds are well planted in rhododendrons, azaleas and evergreen shrubbery of a great variety. Many plants and shrubs of a deciduous nature are to be found about the grounds.

In the sunken garden are to be found



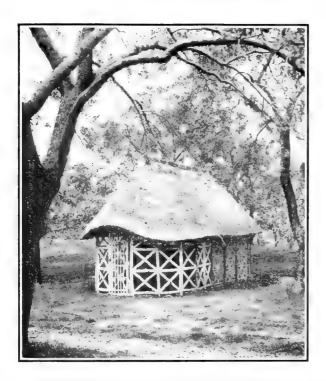
2—THE BREAKFAST ROOM, OVERLOOKING THE SUNKEN GARDEN, WHERE CUT FLOWERS AND POTTED PLANTS ARE LIBERALLY USED FOR DECORATIONS

4--1HE CONSERVATORY, WHICH IS ATTACHED TO THE MANSION, IS ALWAYS RESPLENDENT IN RARE FOLIAGE PLANTS.

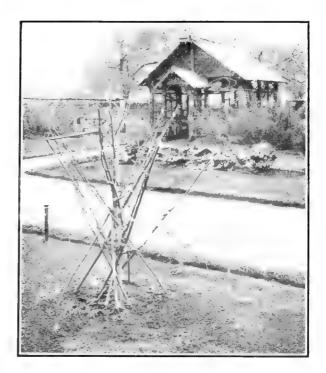
close to the main entrance of the property. The approach to it is effectively planted so that while the home is in full view of the road passing the property the landscaping provides the desired privacy to it.

What may be regarded as the principal feature of "Homewood" at the present time is the new French fruit garden with its Pyramids, Cordons and Espalliers—dwarf fruit trees. The garden was completed this spring by Nicholas Butterbach, who is superintendent of the estate and who has had much experience in dwarf fruit culture, being a student of the French originator of the dwarf trees. Mr. Butterbach has been devoting much personal





THE HEATCHED ROOF TURKLY HOUSE IS ONL OF MANY UNIQUE FEATURES OF THE WARD ESTATE.



THE RUSHIC SUMMER HOUSE, WITH A PARAMED ERROLD FROM
IN THE FOREGROUND, AT THE LOCAL OF THE
FRENCH FRUIT GARDEN.

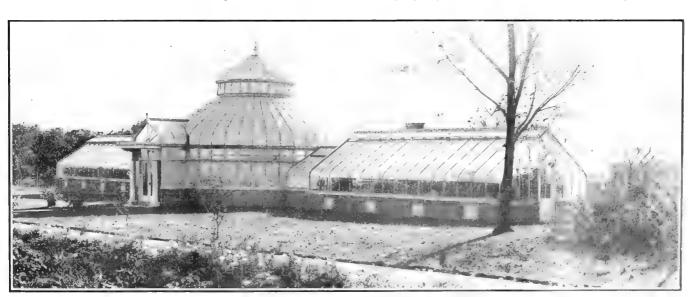
many varieties of old-fashioned flowers. A rose garden covering a considerable area and containing all the finest varieties of outdoor roses is now in process of development.

A lowland sloping off some distance from the side of the mansion is to be converted into an artificial lake this summer, which is to become part of an extensive aquatic garden scheme. The lake is to be well stocked with ornamental fowl. A bridle path will encircle the lake, then lead off through the woods skirting a portion of the estate, and wend its way through the fruit orchard and around the gardens to the other side of the property.

A compact greenhouse range is another parcel of "Homewood." Here roses, carnations, chrysanthemums, sweet peas and many other flowering and foliage plants are found in their season grown to perfection. In the

very near future the range will be extended to include an orchid house, grapery, melon house and houses for vegetable growing.

Part of the estate still remains as a farm equipped with its modern barns, dairy, smoke house, poultry runs, etc. The rustic construction, shown in the illustrations, of the summer house and the turkey house are the handiwork of Mr. Butterbach, and rustic effects are to be put to use wherever they can be fittingly employed in building up the wooded portion of the estate. Mr. Butterbach, who is a gardener of the old school of gardening, but progressive and aggressive in his methods, says "tip-top" in his slogan for everything about "Homewood" and that with Nature's co-operation and man's skill he expects to transform in a few seasons what remains undeveloped of the property into a veritable horticultural paradise.



THE GREENHOUSE RANGE ON THE R. B. WARD ESTATE, WHICH WILL SHORTLY BE CONSIDERABLY ENLARGED.

# A Landscape Style for the United States?

By a Landscape Architect.

In the wooded hill slopes, the blue skies and the distant sea and valley vistas, the Renaissance garden artist of Italy found the material and the inspiration for the Italian garden wonders. His efforts were directed toward the creating of an environment that filled the necessity of his time; his was a garden not to be looked at alone, but to live in—an outdoor continuation of the residence. And thus he created a boldly formal style of gardening.

His work was followed in other countries. French and English garden designers felt the beauty and charm of the Italian work, and tried to copy it for their country; but realizing that there was missing in their work the element that Italy possessed—the setting of sky, mountainside and brilliant sunshine—they elaborated their work with flower beds and other decorations.

Then came the artists of the English style. They took into consideration the moist and cloudy atmosphere of their home country, its stretches of level plain and its gently rolling fields, and they created the garden style typical of its name, "English." Irregularly outlined lakes and pools replaced the geometrical water gardens, while large fields of velvety grass, bordered by groups of graceful shrubs and trees, brought back the harmony with nature which imported art had destroyed. And in using the word "nature" I do not mean to confine its relation by picturing some certain small valley scene and to say that the English style was based on that alone, but upon nature in its broader phases; cloudy skies and dreary days, which made one appreciate the more the contrast of sunny lawns; nature without the laughing mountain brooks, but with slowly winding, stately rivers; characterized by moisture loving deciduous trees rather than evergreens with the dry air in which they are found. And last, but not least, nature reflected in the character of man; on the one hand slow and phlegmatic, on the other fiery and passionate.

In time the English style, in its turn, found its way to the continent, to France and Germany, and even into the heart of Italy itself. Here fine formality was destroyed for large spaces of drouth burned grass; exotic trees crowded out the native trees, and we cannot blame the Italian artist that he sees in the change only the destruction of the old with no compensation in the building of the new. The English style, beautiful and fitting in its own home, had come to a foreign country and failed in its mission. Some authors, in their love of the old Italian style, call the English style "sentimental," and sentimental and tame it certainly must have looked under the bright blue Italian skies.

The English style also came to the United States, and some of its greatest followers were American landscape architects. They have designed great works in park and garden art. But they worked in the English style, with large areas of shorn bluegrass, which, although in their home surroundings were full of endless perspectives, partly lost, in the bright atmosphere of the American continent, their depth of vista, and in midsummer the perspiring visitor to the scene, unconscious of style or vista, curses the sunniness of these plains.

And yet without doubt our great men have felt the lacking harmony and have sought to improve it; probably also they have found localities where the English style could be used fittingly, and in other places have at least pointed the way to better things. But many of their followers, instead of going ahead in the way indicated, have simply come to greater and greater artificiality.

Perhaps where the original style might have been appropriate in some New England state, the same ideas put into effect in the more Western states have produced an effect than which the Italian style of old days, as used in England, could not have been more exotic, more artificial. It is abnormal almost to the point of being ridiculous. Here we plant Kentucky bluegrass seed by the ton; irrigate it at an annual cost that I would not dare to estimate, and on this, plant groups of trees and shrubs of which we have forgotten the native habits if we ever knew them. We plant Chinese, Japanese, Dutch, French, English plants, anything that manages to pull through, without knowing the conditions under which they grow in their native state. Some of these plants are so foreign to us that we do not even know their native country. They are planted because the nurseries grow them, not because we want them for any special character of planting. We plant dry ground plants in bottoms, low ground plants on hills, and wonder why they do not thrive, and in our ignorance probably do not even notice how badly they fit in our landscape scene.

And we have educated the taste of the public to our wrong standard. No beauty of landscape is acknowledged any more unless it has a shorn lawn as foundation We may have native grass, of intense, subtle beauty; as long as it is not clean cut and green as bluegrass is green, we cannot use it. The public does not want it. Of course not; we have educated the public to our exotic standard. We blame the public, but it is we who are to blame.

A style of landscape architecture "for the United States" is something that never can be. No more than an English landscape would fit in Italy, would a New York bit of scenery fit in California. Each section of the country will have to work out its own landscape problems; for some the English effect may be quite appropriate, though our clear sky, warm summers and cold winters due to a continental climate, make it exotic in most places here. For some of our states the solution seems to lie more in the Italian idea of contrast than in the English idea of complete harmony with natural scenery. A close study of nature's characteristics, of the vegetation, soil, climate and other governing conditions, should be the basis of treatment of the landscape question, wherever considered. As a matter of fact, our best landscape architects have already been hammering away on the subject of native planting. The true landscape setting for any country will include and emphasize its own vegetation, not an imported one. Countries with a distinctly deciduous tree character should go slow in evergreen planting, and should use it for variety only: on the other hand a section with conspicuous tree growth and much shrubbery should use that as the basis for planting.

#### MAKING A TREE COMFORTABLE.

In planting a tree to make it grow and there should be no other aim—the tree should be made just as confortable in its new environment as possible. If the land is wet it should be drained, for trees will never thrive with wet feet. The best results are obtained by preparing the land the previous year for the setting of the trees. Clover or cowpeas plowed under in the fall will make humus the following year and keep the soil about the roots. Trees will often do well in poor soils and unfavorable conditions if good soil is placed about their roots, so that they get a good start the first year or so. After they once become established they can do considerable towards taking care of themselves.—Exchange.

# Park System of Portland, Oregon, The Rose City

By Emil T. Mische, Oregon.\*

Portland has an estimated population of 270,000, a two thirds valuation of \$300,000,000, a maintenance bud-

get for parks of \$175,000.

The city's principal industries are lumbering and shipping—principally grain and flour; it is the shipping center of a territory approximately 250,000 square miles in extent. The standing timber in the State represents substantially one sixth of that in the United States.

Since July 1, 1913, the city has been under commission form of government, administered by a mayor and four commissioners. The parks are managed by the Commissioner of Public Affairs, whose other duties are the administering of the public auditorium, sealer of

weights and measures, and the city attorney.

Portland's park acreage is approximately 650 acres within the city limits (comprising an area of about 60 square miles); a bond issue of one million dollars has been expended upon land and construction in addition to the current tax revenue funds. The park extension virtually started in 1908.

The largest park is Mt. Tabor, a large hill 175 acres

mands some fine views of the city plane, the Cascade range of mountains and the snow peaks of Mt. Ranier, St. Helens, Adams, Hood and Jefferson.

Each of the other properties except parkways are 30 acres or less.

Twenty-six playgrounds are provided.

Three miles of parkway extending southwesterly from the center of the city climb the steep hills and overlook the Willamette and Columbia rivers, the flat "east side" and afford a pleasing variety of distant prospects.

Northwest of the city a ten-mile parkway is under construction and along the Columbia a drive extends to a point 30 miles distant from the city and opens a region of scenery remarkably bold, picturesque and inviting. En route are a series of high water falls, cascades, gorges and topographically beautiful scenes. Where the Columbia river cleaves the Cascade mountains it left the shores and borders in this rugged and sublime moulding of the surface.

It is proposed later to acquire a vast forest reservation of some 70,000 acres in extent and by the addition of



ROSE GARDEN IN PENINSULA PARK, PORTLAND

ABOUT FOUR ACRES ARE PLANTED IN ROSES

in extent, mostly fir clad and offering splendid views in all directions. Two miles of 32-foot drives are graded. Its principal vegetative character is that arising from a natural woodland. All planting in it is of native material. When completed an elaborate architectural feature in the form of cascades, staircases, pools and fountains are proposed—taking advantage of the overflow from one city water system reservoir to another.

Macleay Park is 130 acres on the western hills; a deep gorge and a considerable sized rivulet are conspicuous parts of it. Both slopes are covered with a hanging wood in its primeval condition. A short piece of drive traverses it longitudinally and a number of trails wind along the slopes and follow the brook.

Washington Park is 103 acres in area, the oldest developed property. It contains the Zoo, a considerable collection of oriental plants, several statues, and com-

about fifteen miles of drive permit of access by automobile to within a mile and one-half of Mt. Hood's glaciers.

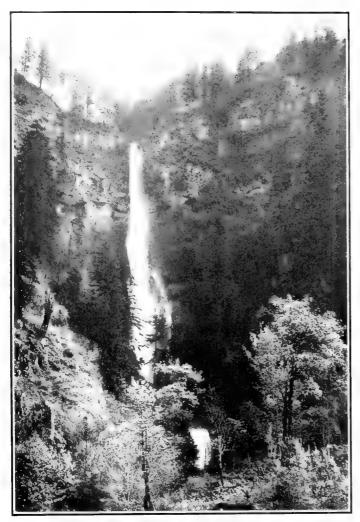
Ascent from about two hundred feet to six thousand above sea level will be possible in a three-hour ride from the heart of the city.

Work on this property has only been undertaken in a trifle more than the past year. When boat landings, picnic grounds, summer camps, trout fishing, mountaineering and snow shoeing are possible throughout the year it is expected our park possessions will be unusually attractive.

In playgrounds the particular phases to be observed are the extent of their equipment—all with the latest type of Spalding apparatus—both in and out of doors: the fence enclosures and provisions of shade and ornamental settings.

But one community center is fully developed by a re-

Landscape Architect, Portland, Oregon.



MULTUOM MI TALLS, IN COLUMBIA GORGE, NEAR FORTEAND creation assembly building, lockers and two gymnasia. A concrete swimming pool is embraced in this outfit.

All equipment is free, including lockers, suits, towels and instruction. Two swimming pools containing about 250 and 280 thousand gallons supply the present offerings.

Climatic conditions coupled with our native flora offer possibilities of park treatment not easily duplicated and only comparably executed on the Pacific Coast.

Bearing in mind that Portland is about three degrees further north than New York City—further north indeed than Portland, Maine, yet supporting vegetation likely to be found in North Carolina, some appreciation of our park vegetation is conceived.

Two characteristics of Portland parks will be distinctly noticeable to visitors from any of the northern tier of states in the East; one that it is the southernmost large city where irrigation is not necessary without all the country side becoming a dreary brown as a consequence of dried herbaceous vegetation and an absence of trees, and the other is the wealth of vegetation cultivated and the distinctiveness of the respective parks in general design, topography and vegetation and architectural supplement.

In traveling westward the eastern delegation will observe the prairies and their covering of bunch grass and sage brush, the eagles in the air, coyotes and prairie dogs on the ground. When the Cascade mountains are approached, say about Spokane, tree growth will be abundant but the aridness is also conspicuous. Pines predominate here whereas further west it is fir. Undergrowth is very sparse and the tree growth is not as dense as further west. After passing the main ridge of the Cascades one emerges at Seattle, Tacoma or Portland, and a greater humidity is evident in the greater density of trees and continuous and thick undergrowth, especially of Salal (Gaultheria Shallow), ferns (Aspidium munitum), Oregon grape (Mahonia nervosa and Mahonia aquifolia) and similar plants.

Rainfall at Portland is substantially the same as at New York City; one hundred miles west on the coast it is twice as great. Moreover the distribution is different here than east of the Cascades, it being more abundant in



A SCINE IN WASHINGTON PARK FARLY IN THE MONTH OF MARCH, SHOWING A LAPANESE PLUM TRUE IN BLOSSOM, AND EDGINGS OF WHITE CROCUS AROUND THE FOUNTAIN.



ONL OF HUNDREDS OF ROSE HEDGES SEEN IN THE RESEMENTIAL STREETS OF PORTLAND

the winter and almost lacking in the summer. This pecularity gives rise to the prevalent reputation of the northwest coast being extremely wet. During the summer the weather is sunshiny without extremes of heat, and each night is cool enough to require blankets for comfortable sleeping.

Customary winters bring only a few degrees of frost, one reason why roses can be picked at Thanksgiving and sometimes at Christmas.

Hardiness here is not a question of extreme colds and drying winds, but a lack of growth stoppage, a consequent soft tissue which suffers even with a degree or two of frost.

Sufficient has been explained to make it clear why roses thrive so well as to cause this city to be known as the "Rose City," why Camellias, Rosemary, Oleander and like evergreens are used in park plantations.

In driving around the city, Eastern visitors are impressed with the free use of English Ivy, English Hooies, Laurustinus, Japanese Hydrangeas, various yews and Australian Monkey puzzles (Araucaria imbri caria). Other interesting plants are to be seen in the yards such as Choisyas, Portugal laurels, Aucubas, privet (L. Japonicum), Photinia (Serrulata), Fuchsias (Riccartonii, principally) Daphnes, Chinese evergreen barberries,

English laurels, bay trees. Chimquapius and a host of others.

Were one word to express the distinguishing features of the Portland parks it would be "quality." Extensiveness and free expansion is not a trait of past park history, but solid construction is the prevailing type and strong character. The latter it would be well for visitors to note particularly, as for instance Washington park has an ornamental vegetative aspect with rustic style of building construction; Mt. Tabor is restricted to native vegetation and is to have colonial architecture; Laurelhurst supports the evergreen vegetation, primarily rural landscape motif, and rough cast stucco; Pennisula, brick and concrete in construction, formal design, gardensque features; Columbia, half timber style in building construction, simple, broad landscape style, curvilinear walk system, evergreen vegetation.

Parkway development has not yet advanced sufficiently to prominently assert its local character of differentiation, and it would be hardly worth while to describe it except to the student. In due course the parkways will be more strongly individualistic and distinctive in character than the parks, also they will give better opportunity as exemplified in possibilities in plant culture than any other public property.



ROSE BUSILES ON THE GROUNDS OF A PRIVATE BUSILEXCE IN THE CITY OF POPTLAND

# Some Notable New Jersey Gardens

By The Onlooker.

Perhaps at no time this year will the country look finer than it did on Sunday, May 9, which was Mothers' Day in the social calendar. The open, sunny weather of April gave vegetation an excellent start and the proverbial showers of that month were not wanting, so that at the beginning of May all nature was arrayed in her freshest and greenest mantle.

It was then time to move about and see the gardens -see their Daffodils and Tulips and beds and greensward; see their shrubberies bearing clouds of pink and white from Dogwood and Crab-apple, view the spring flower gardening and take an early look over the first crops in the kitchen garden. One might have gone to that land or region of fine gardens, the Berkshires, around Stockbridge and Lenox, or the north shore of Massachusetts; or to the north shore gardens of Long Island, or to Westchester county or any one of a dozen famous gardening districts. One may be sure it would have been the same in any or all cases, for the humblest garden looks charming at the end of April and in the first weeks of the month of nests, the merry month, the children's month of outdoor parties and processions.

It was my good fortune to see notable estates at Madison, N. J., owned by enlightened patrons of gardening, and supervised by men highly skilled in their profession. Madison is in the center of a delightful, semi-rural district, 27 miles west of New York.

Mrs. Willis James' extensive place, which was first visited, contains many acres of beautiful lawns, trimly kept, with sheltering belts of shrubbery and tall trees, the choicer trees and shrubs being well placed for general effect over the lawns, and most of them having been planted by William Duckham during the twentyone years in which he has had control. Those planted back twenty years ago are 30 feet or more high in many cases, and if our friend lives for another twenty years, as we hope he will and much longer, by that time he will be able to point with satisfaction and pride to the noble result of his labors of the long ago. This fact is one that owners of new or undeveloped property would do well to remember—they need not and ought not expect finished results the first year, nor the first ten years, but after twenty, twenty-five or thirty years there will be a growing feeling of satisfaction that here is something that is the direct outcome of my labor, something I projected, and such owner will have the pleasurable feeling of having really made the world a better place to live in than he found it, and have materially assisted in developing his own particular corner.

Planting trees is a very excellent form of recreation or employment. Who of us have not known several men who, at the end of a long life, have pointed to tall Elm trees, perhaps Oak trees, or Lindens or Horse Chestnuts, or Evergreens, and said: "I planted that when I came to this place." The writer has been struck with this fact on several occasions, and were this an essay on tree planting would doubtless cite chapter and verse, including his own part in assisting to plant a young forest on hill lands in Scotland about twenty-eight years ago. Back about a dozen years ago the first thinnings of that plantation had already been made and the young timber used as fencing posts. The trees were mainly Spruce and European Larch. Yes, it is really wonderful what growth a plantation

will make in fifteen to twenty years even. So with specimen trees when properly taken care of.

Among the grouplets of ornamental flowering trees at Mrs. Willis James' was one of Pyrus-Scheideckeri, one of the prettiest of the Apple family, which seems to become literally wreathed in silvery pink blossoms wherever grown. It never grows into more than a small bushy tree 10 feet or 12 feet high, and is therefore much prized for ornamental grounds. Pyrus Parkeri is equally attractive, although it is not so brilliant, and a fine grouplet was here. A mass of the almost scarlet leaved Platanus Schwedleri, or redleaved Plane, at the front edge of a shelter belt, was conspicuous. It could not be otherwise; but later on it loses its ruddy hues and goes deep green. The Magnolias were also fine, and, of course, Cornus florida in red and white, and the Judas tree, which forms a sort of avenue just inside the eastern boundary of the kept grounds. But the most remarkable special feature here was an irregular belt of Wistaria chinensis -trees, not vines-planted twenty years ago. They were left alone for a time, and then it was seen that the stems were inclined to rise and support themselves. By judicious pruning back Mr. Duckham maintained and developed this character, and now that a broad, irregular, open hedge or belt-like feature has resulted, with the branches averaging 8 feet to 9 feet high, he spurs back the young growth annually, at the end of the growing season, to two eyes from the previous year's wood. In this way he has built up a very beautiful scenic feature and one that is surely unique.

We have seen huge cupolas made of a big iron frame, entirely covered with this Wistaria, and the effect was wonderful when the long lavender racemes hung down on every side and from the roof, and there is a huge Spanish Chestnut not a mile from where we write which is wreathed, roped and garlanded to the tips and extremities of its branches with the blue Wistaria, but of all the ways and means of growing this exquisite climbing shrub, the hedge of it at Mrs. Willis James' is the most striking. Even our friends the Japs might envy this.

A little walled-in garden near the house had to be passed all too rapidly, but not before one had noted the rich variety of harmonious colors in the Pansy and Viola beds of the parterre. The beds were strictly geometrical, upon grass, and charmingly filled. Forget-me-not furnished a sea of blue here, too, but as my impressions are just mental ones, I cannot recall if Tulips were or had been used. At any rate, Daffodils were in bloom on the place, naturalized in the glass, but in a week or a fortnight it was evident they would have run their course for another year.

The vegetable garden, and the reserve flower garden for the supply of cut bloom, lies a little to the west, and contiguous to the ranges of glasshouses. Mr. Duckham is unexcelled as a cultivator of high-class vegetables. The records of the exhibitions bear the proof.

The earliest culinary Peas were half a foot through the soil from a sowing made about the third week in March, while the early Potatoes were also nicely advanced, and numerous other crops were in evidence in the seedling stage in long rows

the seedling stage, in long rows.

In the houses the chief subjects that come to mind were Canterbury Bills, tall-stemmed Godebias, grown

in bunches, and soon to be at their best for flowering. These were from a sowing made last fall. Clarkias (Sutton's Salmon Rose variety) had flowered themselves to death in pots, and were highly prized for their decorative effect and for use for cutting. They are certainly very dainty and elegant, as well as rich and wonderful in their colors.

The old-fashioned but little seen Throatwort (Trachelium caeruleum), a tall, branching plant with pale blue terminal clusters of feathery bloom, also filled a bench and was another favorite. These and several other special lines of greenhouse stock were a welcome and gratifying change from the all too common Cinerarias, Calciolaries, Geraniums and such like, good and useful though these are.

Lastly there were the Peach houses and vineries, reminding one of the best examples of these in English and northern European gardens. The trees in each instance were young, fresh, clean, vigorous and well

cropped.

Not far to the west of Madison, N. J., lies the extensive and beautiful estate of Mrs. McK. Twombley, one of the most varied and noble as to scenery that is surely to be found anywhere in the Eastern States. Far-flung views meet the eye on all hands, and especially looking to the north, where the sky-line forms a bold and rugged contour over the Ramapo Hills. The intervening distance is composed of wood and vale and meadows over many scores or hundreds of acres.

The estate of Mrs. McK. Twombley has as its centerpiece a magnificent classic mansion and splendidly-kept grounds. One carries away distinct impressions of the colonnade of noble Cedars that form a very telling vista from the south front of the house on the lawn, and terminate in Grecian columns and architectural pieces. From whatever angle or point of view these tall, trimly, pyramidal Cedars are seen, they are notable adornments, and never more so than when truly silhouetted against the sky looking eastward. The front and grounds around the house were the conception of Alfred Parsons, the English landscape artist and painter, the practical application of his plans being carried through by Alfred Herrington.

The mansion stands high and the area on the south front is composed of a superb lawn and terrace. On at least two sides there are sunken walled-in gardens, one being devoted to geometrical beds filled with spring and summer bedding plants; the other, which is contiguous, being a Rose garden. The terrace walls are balustraded. There is also a very fine hedge here. formed of Hemlock spruce, which flourishes. lawn is graced with some shapely deciduous trees, and a broad and well-kept carriage and automobile drive, well lighted at night with handsome arc lamps, sweeps easily up the slope and outward to the west. The lawns are the especial pride of Mr. Robert Tyson, the superintendent, who has been eleven years here. A steep bank, heavily clothed with plantings of Berberises in several kinds, Lilac, Dogwood, rugosa Roses and other dwarfed subjects, supports one side of the terrace garden, and on the other the land slopes gradually from the walls into the picturesque park. Roadways, drives and pathways open up other scenic features of the garden and grounds. Everywhere one is struck by the finished appearance, the splendid keeping and the possibilities of the place on its periphery for further good gardening. It may not be giving any secrets to say that Mr. Tyson cherishes the desire to have Mrs. McK. Twombley develop an arc of a shrubbery slope here into a modern rock garden. We venture to suggest that no finer site for an American rock garden could be chosen than the one here referred to, and if the owner's consent is obtained, Mr. Tyson will assuredly create something that his lady and her friends will be proud of and will greatly enjoy. For the sake of the advancement of this lovely feature of gardening, as yet so new and little understood among us, one hopes to see the idea put into practical shape.

Two of these fine outdoor features deserve mention especially, one being the naturalization of May-flowering Tulips in the grass, where it was said they succeed year by year; the second being an extensive planting of Lily of the Valley under shrubs, the latter very openly planted. The "Valley" has become thoroughly naturalized, indeed to such an extent that the plants run out into the grassland that lies beyond. As the plants were heavily sprinkled with their fragrant, pearly-white flowers, the beauty of this large colony can well be imagined. Thirdly, as a termination of the terrace vista, through the statuary, there was a charming mass of pink and white Dogwood, so finely placed and so well developed that nothing seemed wanting to the completion of this remarkable cameo of garden scenery.

The kitchen or vegetable garden is finely walled, the paths being of grass, very fine, smooth and in no way showing any appearance of being worn or patched. The crops were all in excellent order. The

Asparagus beds were notably vigorous.

The range of glasshouses, including vineries, Melonhouses, Peacheries, Palm house, warm plant house and others devoted to flowering subjects are in the best of keeping. The "glass" is somewhat extensive, and there are five trained assistant gardeners besides Italian help. The gardeners have comfortable quarters close by, each man having his own dormitory, and there is a general reading room and recreation room.

Among the plants that are well and liberally grown are Cattleyas, Gloxinias, Crotons (very fine), Adrointum Farlevense, Rhododendrons and Azaleas, in huge tubs. The largest plants are 12 feet across the head. They are housed, together with many other similar summer specimen plants, in a big shed, something like a huge garage, which is heated in winter. At the present season they occupy positions out of doors. Hydrangeas are also among these stately specimens. Carnations are grown in benches, and as soon as the winter crop is through, say by the end of April, the young plants are immediately substituted and are grown on under glass all summer. Allamanda flourishes here, and we noticed the pretty Reidia glaucescens as well. The fruit crops were tip-top, including a house devoted to Melons. These are topped when one fruit has been set, and this alone is left to develop. It was a truly beautiful sight to see a long line of handsome, fragrant Melons there, the variety being Sutton's Jubilee. Out of doors by the glass ranges the reserve flower borders are arranged, as well as hardy borders and flower beds for spectacular effect. One came away from one's all too hurried call thoroughly gratified with the Twombley gardens and their beautiful setting, and feeling that here, as in similar welldeveloped places, there is a vast fund of pleasure afforded to their owners—not forgetting the more solid and material comforts—and satisfied to think that so many are allowed to share it with them. Such places enrich a whole countryside.

#### "THE MOORINGS," MARION, MASS.

The writer recently had the pleasure of a trip over the Converse Estate at Marion, known as The Moorings. Seven years ago Col. Converse purchased eighty acres of woodland on one of the points in Marion jutting out into Buzzards Bay, a very picturesque spot at that time, but now transformed into a veritable "Fairy Land" under the able direction of Superintendent David F. Roy. Soon after entering the grounds one is driven through the natural woodlands the driveway lined with specimen Rhododendrons, both native and hybrids, in perfect condition and well set with buds, promising a delightful picture in the near future. Right here it might be said that Mr. Roy escaped the disappointment so common in this section this spring of having his Rhododendrons either winter killed or seriously disfigured. was done for them last fall in the way of protection except a heavy mulching with leaves to which Mr. Roy attributes his good fortune. Possibly the retentive character of the soil helped carry them through an unusually

The principal show spot, when I called, was the formal garden with its ten to twelve thousand tulips and daffodils all in bloom at once furnishing a gorgeous display not soon to be forgotten. Some of the tulip beds were left undisturbed from last Spring while others were reset. Through the Summer these beds were set with Alyssum and Black Prince Nasturtiums in combination, or with single flowered petunias. The tulips left undisturbed gave two and three flowers each in striking contrast to the single bloom on the full planted bulbs, and

the quality was about even.

A trip through the greenhouses showed the usual run of flowers to be seen in any well kept place, with thousands of bedding stock in prime condition. Conspicuous for excellence among the flowering plants were the French Hydrangeas, Ixias, some of the newer Hybrid Tea roses in pots, Snapdragon, Schizanthus, while in the orchid house were superb specimens of Dendrobium Chrysatoxum.

An out-of-door rose garden containing upwards of a thousand plants of Hybrid Perpetuals and Hybrid Teas

gave promise of future glory.

Another beautiful spot is the "Daffodil Walk" winding a circuitous way through the woods from the gateway to the greenhouse. As one wanders along the walk of pine needles among Nature's unmolested beauty, with clusters of Narcissus of various types dotted here and there among the trees, and does not find therein some sentiment to the soul he must be impervious to Nature's

glory or the horticulturist's art.

The residence itself is perched upon a knoll at the extreme end of the point overlooking the bay and is most beautifully located. As we wander back on the east shore we find a delightful spot known as the Japanese garden, splendidly located in a little dell with its pond and babbling brook bridged with bamboo, together with the products of nature designed to make the whole effect realistic. As we approach the superintendent's home we see the deer reservation with its ten dainty, alert, sleek looking denizens of the forests and wonder how man can have the heart to ruthlessly destroy such dainty creatures.

Last, but by no means least of the attractions visited was the vegetable garden. Here everything showed careful thought systematically executed and bore evidence of prospects of many delicious fruit and vegetables

to gladden the inner man.

Through the generosity of Col. Converse this place is open to the public at all times and is considered one of the show places in southern Massachusetts.

H. F. TURNER.

#### THE SUMMER CARE OF OUTDOOR ROSES.

By a Rosarian.

For practical purposes, roses may be grouped in five distinct classes, namely, Teas, Hybrid-Teas, Baby Ramblers, Hybrid Perpetuals, Climbers and Ramblers.

Of these, the Teas, Hybrid-Teas and Baby Ramblers naturally bloom under suitable treatment from May to October, inclusive. The Hybrid-Perpetuals produce one heavy crop of blooms in June and, under skilful culture, some casual blooms, the number depending upon both the variety and the care which they receive, during the remainder of the season. The name, Hybrid-Perpetuals, is somewhat misleading, the latter word, Perpetual, not meaning that roses of this class bloom perpetually, but that, with proper care, they will continue to live outdoor indefinitely. Climbers and Rambler bloom once each year, in late June or early July, and, as a rule, do not bloom again that season. There are a few exceptions to this last statement; climbing American Beauty, Flower of Fairfield, called by some the Ever-Blooming Crimson Rambler, Christine Wright, and perhaps a few others, under proper treatment will, like the Hybrid Perpetuals, bloom sparingly, after the main crop is over in July, during the remainder of the summer and autumn.

To obtain the greatest number of blooms from the bushes of any of these several classes of Roses it is of paramount importance that we both summer prune the bushes in a correct way and that we cut the blooms in such a manner as to encourage a continuance of the blooming period. Indeed, summer pruning in a large measure is performed in the proper cutting

of the blooms.

We should never break a rose carelessly from its bush if we would like the bush to make the best form of growth, and produce the greatest number of blooms during the season, but we should sever the blooms from their bushes in a systematic, scientific way with some cutting instrument, preferably a sharp knife. The flower buds of the rose are produced on the young growth of the season. When we pick either one bloom, or, in the case of ramblers and other polyantha roses, a cluster of blooms, we should cut the bloom or cluster with a sharp knife, taking with each a stem of such a length as to leave a stub having only one vigorous leaf on it, between the point where the cut was made and the old hard wood branch, or main body of the bush, out of which the young wood, which bore the rose bloom, grew. From the axil of this one vigorous leaf will spring another shoot, which, under favorable cultural conditions, will be robust and thrifty, and on whose tip another rose may appear. Never in picking a rose break or cut clear back to the old hard wood branch or body; never vary from the method of picking suggested, because it seems to you that, if followed, the stem of the rose will be either too short or too long. There is no other correct method of picking roses. If we cut, in picking a rose, clear back to the old hard wood, not leaving a stub of the young wood with a strong leaf thereon, then a new flower-producing branch can spring only from a latent, or adventitious bud on the hard wood, which does not usually happen except under very favorable conditions, and then the branch is often too weak to produce a good bloom. If, on the other hand, we leave a stub of the young wood with several leaves on it, from the axil of each of these will come a shoot more or less weak, which will bear either no bloom or at the best an insignificant one. A young shoot which produces no flower is said to "come blind," and the

(Continued on page 274.)

# Work for the Month of July

Conducted by Henry Gibson, New York.

#### THE FLOWER GARDEN.

With the approaching heat of the July days this department will demand a good deal of attention. We can hardly expect to have sufficient rainfall to supply the needs of the plants in their demand for moisture, so it would be well to make arrangements for having the beds and borders thoroughly watered from time to time with the hose. Weeds should be kept down and the surface soil stirred frequently, which helps to conserve the moisture to a remarkable degree.

Many of the occupants of the hardy border are just commencing to make their best showing, and everything possible should be done to make the most of them. Summer bedding, and potting of chrysanthemums during the month of June take up so much time that it is almost impossible to attend to staking and tying at the proper time. Though this work is apt to prove irksome during the long hot days, yet personal inclinations should be put on one side and an extra effort made to keep up with the work.

Where biennials and perennials are wanted for permanent planting in the fall, the seeds should be sown now, if not already done.

#### LAWNS.

These demand a large amount of attention at this time of the year. A protracted drought soon gives them a brown, burnt-up appearance that is not at all desirable. True, we cannot expect a lawn to present as luxuriant a green color as it does during the early summer months, yet by keeping the sprinklers busy it is really surprising what can be made of it. The grass will not need to be mowed so frequently, and the time thus saved will be well spent keeping the hose and sprinklers busy. Preserve a trim and neat appearance round the walks and drives by keeping the grass edges clipped.

#### THE VEGETABLE GARDEN.

Keep the hoe busy among the crops to preserve the moisture in the soil, as is suggested in the flower garden. If drought is experienced, don't hesitate to flood the vegetable patch with the hose. There is no comparison between fresh succulent vegetables, grown on a well-watered and cultivated piece of ground, and those obtained from ground that has become baked. Beans, corn, etc., may be sown for succession, also lettuce, radish and other salads. Keep tomatoes tied, and prune away the laterals.

The winter supply of celery should be planted out this month. The old method of digging trenches is rapidly being lost sight of, setting the plants in drills drawn in pairs a foot apart and 3 inches deep is the modern method. Of course, it is understood that a space of from 4 to 5 feet is left between each pair of drills, to allow for earthing up. Celery is a marsh plant, and obviously needs copious supplies of water. During dry weather thorough and frequent waterings must be given. There seems to be one advantage in digging trenches and growing by the old method, inasmuch as during long spells of drought previous to earthing up, the hose can be turned into the trench

and the water allowed to run until the trench is full. Early-planted celery will now require tying and earthing up in order to blanch it. Keep a sharp lookout for leaf mining maggot, and burn affected parts as soon as observed.

#### FRUIT GARDEN.

Pot up runners of strawberries, and if the old plantations are past their usefulness, dig or plough them under, and plant to late crops of vegetables. If not needed for this purpose the ground could be seeded to some leguminous green crop to be ploughed under in the fall and thus add to the fertility of the land.

Peaches, apples, pears, etc., should be thinned if the crop is heavy. Summer pruning can be continued.

#### The Greenhouses.

The newly-planted roses are now growing vigorously and will be benefitted by a good mulching of horse manure. Don't use fresh manure, but if none other is available, water it in well as soon as it is put on. Tie up the plants and keep them clean; do not allow them to flower. Let the buds stay on until they are about to show color, and then cut down to the first good eye.

#### CARNATIONS.

Where field culture is adopted the young plants should have every attention in the way of watering, spraying for thrips, pinching and general cultivation in order to have first-rate plants for benching later on. The old plants in the houses are now past their usefulness and should be thrown out. Get the houses ready for planting the young stock. Give the bench a good coating of hot lime and add a good handful of sulphur to each bucketful. If the house is entirely empty, burning flowers of sulphur inside will clean out a good many pests.

#### MISCELLANEOUS PLANTS.

Poinsetteas may still be propagated, and the early-rooted ones potted up as they are ready. Double violets may be planted this month. These require to be carefully watered, good cultivation and fumigating religiously attended to in order to have first-class blooms next winter.

The winter flowering Begonias, Glory de Lorraine and Cincinnati should be potted on as required, using a light compost containing a fair amount of fibrous material. The feeding roots of these plants are very delicate and do not readily penetrate a heavy, firm soil, hence light potting should be the rule. Ample drainage should be provided for, and watering carefully attended to. Shading at this time is indispensable, and a light spray overhead will do much to encourage a free growth.

Calanthes are now making strong, vigorous growth. The atmosphere should be kept moist by several dampings down during the day, but care should be taken to avoid anything like a stagnant humidity at any time. See that the plants do not suffer for want of water, though the other extreme, a wet, sour condition of the soil, is not conducive to their welfare. As the pots fill with roots, weekly applications of diluted liquid manure will be very beneficial, until the flower begins to expand, when it should be discontinued. Thrips should be kept under control by frequent spraying or fumigation.

Gardenias planted early last month will now ad-

vance rapidly, and every encouragement should be given them to make a sturdy growth. On all favorable occasions ventilation should be given, at the same time avoiding direct cold draughts striking the plants. Examine the benches each day for places that dry out more rapidly than others. Gardenias dislike being kept too dry or too wet; the happy medium is the thing to aim at if success is to be obtained. A light dusting of bone-meal will give them something to feed on, and a mulch of well-rotted manure will serve the same purpose, in addition to preventing too rapid evaporation from the soil. Mealy bug is very partial to these plants, but a good syringing every bright day keeps it in check.

Seeds of Schizanthus, Stocks, Mignonette and other winter flowering subjects should be sown this month.

Towards the latter part of the month batches of Freezias, Harrisii Lilies and Paperwhite Narcissus may be planted.

# PROPER CULTURE OF FANCY STRAWBERRIES.

In growing fancy strawberries the soil is of the most importance; next is the variety and then the plan of culture. The best soil for strawberries is that which is so filled with humus that it is alway light and mellow. Soils that have been depleted of humus, or so-called rusty soils, filled with ferments, are not well suited to any crop. Old garden soils that bake down hard should be filled with vegetable matter in the form of strawy manure, cover crops of clover, or other legumes, or perhaps with both.

For growing large, fancy strawberries the varieties that are adapted to the hill system of culture are best because they make long taproots, to gather plant food from the lower layers of soil, and large masses of foliage, to afford more surface to absorb food from the atmosphere. The leaves should be quite immune from blight and the plants fairly productive of large, sweet berries sufficiently firm to stand up forty-eight

hours if picked when ripe.

Success depends largely on having a good supply of plants. For fancy berries grow plants in the fruiting bed only for fruiting—that is, keep the runners all cut

off if plants are grown by the hill system.

When the plants are set, cultivation should begin at once, before the weeds start to grow or the ground bakes. If the cultivator is run both ways between the plants but little hand hoeing will be necessary. If the weather is dry the cultivation should be frequent to keep a dust mulch round the plants to conserve the moisture. It will have much work always to cultivate before the weeds grow. When the runners begin to grow in June the plants should be gone over once a week and the runners cut off with a sharp hoe.

When the ground is slightly frozen is the best time to apply mulching material. Heavy mulching is necessary for obtaining the best results; it retains moisture, holds back the growth of plants in spring, which may prevent injury from a late frost, prevents weed

growth and keeps the berries clean.

When the plants start to grow in the spring rake off the mulch, where it is too thick, between the rows and remove any weeds. Weeds should be taken out even when the plants are fruiting, if the bed is to be carried over in good condition for another year. After a bed is well established I try to keep it five or six years. This may be done with the hill system if the plants are always kept free from weeds.—Country Gentleman.

#### THE SUMMER CARE OF OUTDOOR ROSES.

(Continued from page 272.)

shoot is called "blind wood." As soon as it is seen that a young shoot has "come blind" it should be cut back so as to leave a stub with only one strong leaf on it, just as when cutting a rose from a young shoot. If rose bushes are pruned in the summer and the blooms picked according to this method, we will have no tall, thin rose bushes with weak, bloomless branches, but low-growing, well-shaped bushes on whose young shoots many blooms will be produced.

Other important factors in the summer care of outdoor roses and in promoting their continuous blooming are the weekly stirring of the surface of the soil around the roses and in the entire rose bed, and the fertilization of the soil monthly. There will be little necessity for artificial watering of the rose bed, if at least once each week the soil be cultivated so as to leave it soft and fine to a depth of 2 inches. About once a month there should be worked into the soil all over the rose bed or border, and for 2 or 3 feet around specimen bushes on a lawn, a spread of well-decayed cow or sheep manure from 1 to 2 inches thick. Between these applications of manure during the summer a spread of bone meal thick enough to thoroughly whiten the surface of the soil may be worked in the same way as manure.

If rose bushes are kept well pruned, well fertilized, and the soil in the beds frequently stirred, and they are consequently in a thrifty condition, they are far less liable to the attacks of disease and insects. The prevalent rose diseases are mildew, which causes the foliage to look as if it had been sprinkled with a whitish powder, and to look curled and blistered, and black spot, spots of black appearing on the foliage. The remedy for the former is flour of sulphur or "Fungine" applied to the foliage, and for the latter very dangerous disease, spraying with Fungine will be some help. The most common insects are aphis, thrips, several kinds of small worms, and rose bugs. The remedy for the first three is any of the several commercial nicotine preparations such as Aphine, used as a spray, and for the latter picking off with the fingers and destroying has for years been considered the only sure and safe remedy, since spraying with any mixture strong enough to kill the rose bugs invariably injured the rose leaves and flower buds.

The essential factors then in the summer care of all classes of roses are proper pruning of the bushes and cutting of the blooms, a weekly stirring of the surface and a monthly fertilization of the soil, prompt administration of remedies for diseases and destruction of insects.

#### IMPROVING THE LAWN.

The improvement of an old lawn is a very much more difficult problem than establishing a new one. In many cases it is impracticable to attempt the improvement of an old lawn that is in bad condition, says the U. S. Department of Agriculture. However, if a reasonably good turf obtains, it is possible to better it materially by reseeding, fertilizing, and watering. In the majority of cases improvement is desired in the spring, since at this season many bare spots are in evidence as the result of the preceding winter. If the areas to be improved are small, they can be handworked and reseeded with little difficulty. If they are large, it is usually advisable to spade them up, work thoroughly, and seed, as in the case of starting a new lawn.

In the early spring the soil is usually loose as a result

of the freezing and thawing and is in sufficiently open condition to permit the seed to be covered with little difficulty. After seeding, if the ground has become quite dry, rolling is usually beneficial. Care should be taken when mowing or watering the newly seeded areas to avoid disturbing the young grass.

The management of the lawn after it is once established is an extremely important matter, and there are a few general practices that should be followed carefully. Beginning in the early spring, the first thing to do is to remove with a rake the top dressing that has been applied the fall before. After removing this it is usually advisable to apply some fertilizer, even though the soil is already reasonably fertile. Fertilizing through the season is especially beneficial in keeping the grass stimulated at times when it would otherwise be more or less inactive. Pulverized limestone as a top dressing is very helpful, and an application of this substance can be made either in the fall, winter, or spring. Lime corrects the acidity of the surface soil and is useful in checking the growth of moss and various other plants that are detrimental to the grass.

There is no hard and fast rule to be followed in connection with mowing the lawn, but clipping twice a week is not apt to injure it, and will induce the formation of a good turf. Too frequent clipping, however, is a drain on the vitality of the grass, and frequently results in per-

manent injury.

There is some difference of opinion as to whether clippings should be removed after mowing, but in general their removal is advised, especially during wet weather, since if left to lie on the surface they are conducive to the growth of molds, which in turn produce injury to the turf. On new seedings, however, or where the grass is thin, clippings can frequently be allowed to remain with benefit.

There are probably more mistakes made in connection with the watering of the lawn than in any other phase of its management. The practice of sprinkling as it is almost universally followed is fundamentally wrong, not that the sprinkler does not furnish enough water to the grass during the season, but that it does not furnish it in properly distributed quantities. Sprinkling for a short period may appear to wet the sod thoroughly, but in reality the water does not penetrate much below the surface. This encourages the formation of surface roots and makes the grass less resistant to the severe conditions of weather and usage.

Except in rare cases, the lawn should not be watered oftener than two or three times a week, provided watering is done properly. A thorough soaking is necessary and should be given in the late afternoon or early morning. The point to be borne in mind is that the ground should be thoroughly saturated at each application to at

least three inches in depth.

While weed enemies of the lawn are troublesome throughout the growing season, they are most particularly so from the latter part of June until frost. During this period crab-grass is by far the worst weed present. There is no really satisfactory method of checking its growth, and the only treatment to be recommended is to cut or pull the plants before they have formed large mats. This is a very tedious and expensive practice, but where a good lawn is involved the results justify the expense. Rational fertilizing and careful watering during the summer help to overcome the effect of weeds.

There are many other weeds that are troublesome in the lawn not only in the spring but also in the summer and autumn: Among the most important ones are dandelion, plantain, chickweed, oxeye daisy, and yarrow. While chemical sprays are more effective in the eradication of these weeds than in the case of crab-grass, the best method of preventing their development is to remove them with a spud or similar implement.

The weed problem can perhaps best be solved by making the conditions as favorable as possible for the lawn grasses and to maintain a strict watch at all times to check the growth of the troublesome weeds at the beginning. At the end of the growing season before the severe weather of winter arrives, the lawn should be given a good top-dressing of well-rotted barnyard manure. If the manure is not well rotted, it is likely to introduce an abundance of weed seeds, which will ultimately cause considerable trouble. Top-dressing not only adds fertility to the soil, but gives the grass protection during the severe weather of winter and the freezing and thawing of early spring.

#### AN INTERESTING LILAC EXHIBIT.

An exhibit of lilacs from the famous collection owned by T. A. Havemeyer, of Brookville, Long Island, was staged in the Museum of the Bronx Botanical Gardens under the auspices of the Horticultural Society of New York, in connection with the Bronx gardens. Some fifty vases, each vase containing a different variety, were displayed. The accompanying illustration shows a vase of



THE NEW LILAC LEON GAMBETTA

Leon Gambetta, a new light variety, said to possess great merit. This is said to be one of the most beautiful lilacs in Mr. Havemeyer's entire collection. In addition to the lilacs over a hundred vases of Darwin and Cottage tulips of different varieties were exhibited.

Fyou are a member of a local horticultural society or a garden club and do not find the report of your association's meetings or other events of it in our columns their omission is due to the fact that your secretary has not sent them in. Get after him!

# See America First En Route to Frisco

En route to the 1915 convention at San Francisco the special train of the park superintendents and their friends, in its Chicago-'Frisco journey between St. Paul-Minneapolis and Portland will follow the See America First route of the Great Northern Railway, via Glacier National Park.

Those who will join the party assuredly will see a very great deal of America. Glacier National Park, where the special train will tarry for a day, in many respects is the most wonderful of the National Playgrounds. In the 2,000 miles, besides, of transcontinental tracks that are included in the Great Northern's lines between the Mississippi Valley and Glacier Park, and between Glacier Park and Puget Sound, along every mile there is something of America to see.

At St. Paul and Minneapolis the Great Northern's transcontinental track begins—neighbor cities with a combined population of 600,000 spreading over 100 square miles on both banks of the Mississippi that are two gateways to the Great Northwest. The Great Northern's stone arch bridge spans the river.

Across central Minnesota—from southeast to northwest—the Great Northern tracks follow through the Lake Park region, where Minnesota's 10,000 "lakes of sky-blue water" of the bygone Dakotahs are—a bountiful belt of the "Bread and Butter State." As Minnesota's border is neared, the Red River valley is entered—the bed of glacial Lake Agassiz of the dim time after the Ice Age, during the past half-century famous for its "No. 1 Hard" wheat. At Moorhead (250 miles out from St. Paul) the

Red river of the North, flowing to Hudson's bay, is bridged.

Across the golden grain-carpeted prairies of North Dakota—from Fargo and Grand Forks on the Red river—the Great Northern makes almost straight westward. The richest section of this state that possesses 70,000 farms, 100,000 "big red barns" and 2,000 huge grain elevators—and is really one vast farm of 45,000,000 acres—is traversed.

At Williston (606 miles out), close to North Dakota's western edge, the Great Northern sets a course along the north bank of the upper Missouri river—the "Big Muddy"—in the old steamboat days the route of many big boats bound from St. Louis to Fort Benton, laden for the military posts and the Helena "diggings."

At Mondak (629 miles) the Great Northern enters Montana. So big a state is Montana—only Texas and California are bigger—that 685 miles of the Great Northern's rails are necessary to the crossing of it. For the first four hundred miles of this distance the track is laid across the high plains of northern Montana; that as they outstretch westward gently rise from an altitude of 1,900 feet at the Dakota line to one of 3,700 feet at the foothills. The ride across Montana's wide plains—where vast sweeps of open country everywhere meet the eye, and the sunshine—saturated, clean air is glorious—is a novel one. These plains—today fast developing into an agricultural empire—are rich in romance; much stirring Indian-fighting took place hereabouts in frontier days, and later on this was the land of the Montana long-horn



STEAMER "ST. MARY" APPROACHING GOING-TO-THE-SUN CHALETS, ON ST. MARY'S LAKE, GLACIER NATIONAL PARK.

and the cowboy. Cabins and "false-fronted" stores of the cattle days are yet to be glimpsed—relics of the vanishing old West.

Following the Missouri first—for more than a hundred miles—the track traverses the For Peck Indian Reservation country; on their lands some 1,800 Assinaboine and Yankton Sioux, many of whom took part in Sitting Bull's campaigns, are nowadays thriftily farming. Poplar (692 miles) is the agency headquarters. The Milk river is followed next—for nearly two hundred miles. Much of that grain growing that has made Montana the champion of the United States in bushels to the acre is carried on along the Milk. Near Chinook (894 miles) is the battlefield on which United States troops under General Miles defeated Chief Joseph and his Nez Perces. Near Havre (915 miles) is the old Fort Assinaboine; the Bear Paw mountains, outposts of the Rockies, rise out of the plains.

At Cut Bank in the foothills (1,044 miles, altitude 3,698 feet) the Great Northern begins its climb up the long east slope of the main range of the Rocky mountains—across the reservation of the Blackfeet Indians; 3,000 of that one-time proud nation are here. Browning (1,078 miles; altitude, 4,440 feet) is the agency town.

One thousand and ninety-one miles out from St. Paul, at an altitude of 4,785 feet, the Great Northern reaches the log-built station of Glacier Park, the gateway to Glacier National Park.

The tremendous mountainland of Glacier National Park sits high up in the splendid Rocky mountains of northwestern Montana-on and about the Continental Divide. Glacier Park's mountains outstretch from the Great Northern's track all of the way northward to the Canadian border, and from the reservation of the Blackfeet westward to the Flathead river-a mountainland that is 1,525 square miles in extent. With Mount Cleveland (10,438 feet), Mount Jackson (10,023 feet) and Mount Siyeh (10,004 feet), its generals, a veritable army of magnificent peaks, giants of the divide, for all time is encamped here—peaks that rear from 8,000 to 10,000 feet above sea level, with their bases thickly forested up to the timber line, and their limestone crests by sun and wind painted in many colors—reds and browns, and blues and purples. The "roof of America" is what this region is oftentimes termed; from these heights waters start on journeys west to the Pacific ocean, north to Hudson's bay and south to the Gulf of Mexico.

Atop these mountains are eighty living glaciers that are every bit as inspiring as those ice fields Americans have been crossing to Switzerland to see; of these the great Blackfeet Glacier has an area of five square miles. Up in these high places, too, are droves of nimble-footed Rocky mountain goats—and deer and elk. Among these mountains, in the forested valleys where gorgeous wild-flowers riot, are 250 glacier-fed blue mountain lakes, and scores of noble cataracts and rollicking mountain streams. Many of nature's phenomena are within the park besides—like the Iceberg Lake, where, between flower-carpeted shores, icebergs serenely float the summer through.

At Glacier National Park the superintendents' Special will tarry a day. During this stop-over memorable pilgrimages will be available to the superintendents. By auto-stages they may journey up the 50-mile Automobile Highway to the mammoth new mountain hostelry, the "Many-Glacier." Here, in the park's heart, are beautiful McDermott McDermott Lake and Falls, Grinnell Mountain and Glacier, Gould Mountain, Mount Wilbur, Iceberg Lake, Swiftcurrent Pass and the Garden Wall. By launch they may cruise up St. Mary's Lake, the finest of the mountain lakes of America, to Going-to-the-Sun Chalets, where grand Going-to-the-Sun Mountain is, and

Little Chief and Red Eagle, and Fusilade and Citadel. Or by auto-stage they may gain the Two-Medicine country, where the Two Medicine Lakes and Trick Falls and Rising Wolf, and Appistoki and Triple Divide are.

On westward from Glacier Park the Great Northern sets its course along Glacier Park's southern boundary, the only transcontinental track in the United States that lies alongside a national playground.

Summit (1,104 miles) marks the spot where the Great Northern scales the Continental Divide—through that gap in the Rockies that's called Marias Pass—5,202 feet above sea-level.

The ride down the steep west slope of the main range of the Rocky mountains—from Summit down to Columbia Falls—is a fine one. In a distance of 60 miles the railway descends 2,100 feet; in the first fifteen of these miles the descent totals 1,200 feet. The track lies all among majestic mountains, among the tall pines of the Flathead National Forest, and follows close beside rushing mountain streams—Bear Creek first, the middle fork of the Flathead river next, and finally the Flathead itself. From the horseshoe curve at Skyland a wonderful view is had down into the Bear Creek Valley, its floor a thousand feet below the railroad. The middle fork of the Flathead, from Java station followed for 35 miles, is a mountain river particularly beautiful. Belton (1,149 miles) stands at the western gate to Glacier Park.

Then from Rexford (1,234 miles) the Great Northern Railway does some more mountaineering—through the canyon of the Kootenai. The Kootenai river has its source in the high glaciers of the Canadian Rockies, hastens southward into the States—a big, vivid-green river—and among the west spurs of our own Rockies describes a wide horseshoe through the northwestern corner of Montana and the "Panhandle" of Idaho. Entering the Kootenai's canyon at Rexford, crossing the Montana-Idaho line just beyond Yakt (1,314 miles), and leaving the canyon at Bonner's Ferry (1,339 miles), the Great Northern for 105 miles follows this horseshoe of the Kootenai's—through the Wolf Range, the Purcell Range and the Cabinet mountains—another very fine rail ride

The Kootenai National Forest, the Libby Creek and Yakt river placer gold fields, the lively saw-milling towns of Libby in Montana and of Bonner's Ferry in Idaho; the rugged Cabinets where mountain lions and bears roam—these are interesting things in and about the Kootenai Canyon. Out of Idaho (from Sand Point 1,372 miles) the track follows another brawny and green mountain river—the Pend Oreille.

The State of Washington the Great Northern enters at Newport on the Pend Oreille (1,391 miles); 1,447 miles out from St. Paul the Great Northern reaches Spokane.

Spokane, about the mighty falls of the Spokane river—makers of 400,000 horsepower for electrical purposes—is the hub of eastern Washington, of Idaho and of western Montana—of what's called the Inland Empire. Spokane in 1880 was a village of 300; today, with 120,000 people, it's Washington's second city. In the shelter of the Cabinet and Coeur d'Alene ranges, a chain of fine apple-growing valleys surrounds it. Hayden Lake—an hour away—is a delightful resort in the Coeur d'Alenes.

Westward from Spokane the railway makes across the high prairies of the eastern Washington Big Bend country—taking its name from the big bend of the Columbia river off to the north and west of it—a wheat-growing land of 7,000 square miles.

From the little depot that's called Crater (1,590 miles) the Great Northern descends from the highlands to the east bank of the mighty Columbia—by a track that winds down the walls of the weird, volcano-rent Crater Coulee.

The railway follows up the Columbia, beneath its basalt l'alisades—beyond Rock Island (1,610 miles) the rail-

way bridges it.

Wenatchee on the Columbia (1,621 miles) is the hub of the Wenatchee Valley, the "Land of the Big Red Apple." A generation ago this was a desert of volcanic ash, where only sage-brush grew; today under irrigation the Wenatchee Valley, from end to end is one vast orchard that bears "big red" Wenatchee apples that are shipped even over-sea.

Up the Wenatchee Valley the transcontinental track heads toward the Cascades—through the spurs of the Wenatchee range and alongside the snow-fed Wenatchee

river, hurrying down from Glacier Peak.

Leavenworth (1,644 miles), altitude 1,165 feet, stands at the eastern base of the main range of the Cascade mountains; here the Great Northern begins its scaling of the Cascades—the most wonderful ride by rail in all America. A second big locomotive—a "helper"—is

coupled to overland trains.

Tumwater (Talking Water) Canyon the railway enters immediately, and for ten sharply-climbing miles the track twists up this wonder place—a tremendous cleft where the Wenatchee tumbles and foams between mountains forested with firs, hemlocks, spruces and cedars of the Wenatchee National Forest, and so high that never-melting snow lies in the shadowed crevices about the crests of them. Rare bear, deer and goat hunting is hereabouts.

Nason Creek Canyon the railway climbs from Nason Creek station (altitude 2,153 feet)—another tremendous cleft in the mountains with brawling Nason Creek at its

bottom.

From Cascade Tunnel station (1,677 miles), at 3,375 feet altitude, the Great Northern through the Cascade

Tunnel passes under the ridge of the Cascades.

Tye (1,680 miles) stands at the west portal of Cascade Tunnel, and is perched high up on the north wall of Tve River Canyon; here the Great Northern begins the descent of the Cascade's west slope—the track following a shelf along the canyon's wall. The "doll's house" that's glimpsed from this high track, down in the canyon, is the big hotel at Scenic Hot Springs. The shoulder of Windy Point is tunneled. A bit further on the track bridges the chasm of Martin's Creek and runs the unique Martin's Creek Tunnel—both of whose portals are east portals, and which describes a complete down-hill horseshoe in the mountain. At Scenic the railway horseshoes into the west again—a descent of 1,007 feet in 9 miles of track at that delightful mountain resort, in the Snoqualmie Nation Forest, Scenic Hot Springs. Skykomish (1,701 miles), 1,168 feet below Scenic, marks the bottom of the descent of the main range of the Cascades.

The salt waters of Puget Sound, the Great Northern reaches at Everett (1,753 miles)—and from Everett southward to the three wonder cities of the Pacific Northwest, Seattle, Tacoma and Portland—still another fine rail ride—the Great Northern, over what's nicknamed the "Coast Line," makes through the delightful Puget Sound country and the interesting lower Columbia region.

# PARK SUPERINTENDENTS' ITINERARY TO SAN FRANCISCO.

The itinerary of the American Association of Park Superintendents' trip to San Francisco is now complete and being distributed. An invitation has been extended to the members of the National Association of Gardeners, and to members of all horticultural societies to join the park superintendents on their trip to the Pacific coast and return, to attend the several conventions to be held in San Francisco the third week of August.

The party will leave New York on Saturday, August 7,

arriving at Chicago the following morning. Leaving Chicago that night the party will arrive at Minneapolis on Monday morning and continue its trip that night, traveling through North Dakota and Montana, reaching Glacier National Park, Montana, on Wednesday morning. After spending a day at the park in sightseeing, the party will arrive at Spokane, Wash., the following morning. It will leave for Seattle that night, arriving there the following noon. The next morning a Puget Sound steamer will be boarded for Tacoma, which city will be reached about noon. The following morning the party will arrive at Portland, Ore., departing in the afternoon for San Francisco, where it will arrive late on Monday afternoon August 16.

After a week's stay in San Francisco the party will continue its trip on Tuesday, August 24, for Los Angeles, Pasadena and the San Diego Exposition, in which cities

four days will be spent.

Departing from San Diego on Sunday morning, August 29, the next stop will be at Salt Lake City on the following day. Pueblo, Colo., will be reached on Tuesday afternoon, where a short stop will be made for sight-seeing, and Colorado Springs on Wednesday morning. Leaving Colorado Springs the following morning the party will arrive at Denver at noon of that day, remaining until night and arriving at Kansas City, Mo., the following afternoon, leaving that night for St. Louis.

Arriving at St. Louis Saturday morning the members of the party will separate that evening, those traveling to Chicago arriving at that city on the following morning; those for New York, Philadelphia and Washington arriving in the eastern cities early on the morning of September 6.

The round trip fare over the entire route, including lower Pullman berth, will be: From New York, \$164.80; Chicago, \$159.20; Washington, \$151.95; Buffalo, \$140.50; Chicago, \$114.50; Minneapolis, \$105.95.

Fickets are good for ninety days, so that those who may desire to leave the party in California and extend their trip on the Pacific coast, or in Colorado, to visit Yellowstone Park, can do so by making arrangements for the homeward trip when purchasing tickets. Return trip can also be made from California via the Sunset Route to New Orleans, thence by the Southern Pacific steamers to New York at no additional fare.

Complete details and copy of the itinerary may be had by applying to Herman W. Merkel, chairman Transportation committee, American Association of Park Superintendents, Zoological Park, New York; M. C. Ebel, secretary, National Association of Gardeners, Madison, N. J., or any of the offices of Thomas Cook & Sons, tourist agents.



EXPOSITION MEMORIAL AUDITORIUM, SAN FRANCISCO, WHERE THE CONVENTIONS WHIL BE HELD.

THE

#### GARDENERS' CHRONICLE

OF AMERICA.

Published by

#### THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK. MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Foreign, \$2.00

Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

::

Published on the 10th of each month. Advertising forms close on the 1st preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### NATIONAL ASSOCIATION OF GARDENERS

President, J. W. EVERITT, Glen Cove, N. Y.

l'ice-President, W. S. RENNIE, Ross, Cal.

Treasurer, JAMES STUART, Mamaroneck, N. Y.

Secretary, MARTIN C. EBEL, Madison, N. J.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; Wm. Tur-er, Mendham, N. J.; Geo. W. Hess, Washington, D. C.; John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President,
GUSTAVE X. AMRHYN,
New Haven, Conn.

Secretary-Treasurer, ROLAND W. COTTERILL, Seattle, Wash.

JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

Vice-Presidents, CARL W. FOHN, JCColorado Springs, Colo. JOHN HENDERSON, Montreal, Canada. CHARLES HAIBLE, Newburgh, N. Y. J. H. PROST, Chicago, Ill.

Vol. XIX.

JUNE, 1915.

No. 6.

#### NATIONAL ROSE GARDEN DEDICATED

The dedication of the National Rose Garden occurred in Washington, D. C., on June 3. Many public officials were present and the rose industry was well represented by a number of men prominent in it.

The ceremonies were presided over by Robert Pyle, of West Grove, Pa. Dr. William Tayor, chief of the Bureau of Plant Industry, Department of Agriculture, represented Secretary of Agriculture Houston, who was unable to attend owing to other official engagements.

Wallace R. Pierson, president of the American Rose Society, presented the Rose Garden to the Department of Agriculture, which was accepted by

Chief Taylor on behalf of that Department.

Addresses followed by Professor L. C. Corbett, David Fairchild, Dr. W. Van Fleet, Peter Bisett, all of the Department of Agriculture, and Benjamin Hammond, secretary of the American Rose Society. When William F. Gude proceeded to formally dedicate the garden, it might have been more fittingly termed a christening, as his address was made during

a heavy downpour of rain.

Following the dedication services the guests were entertained by Mrs. C. C. Bell, of Washington, at "Twin Oaks," where she has a beautiful rose garden. Mrs. Bell is the daughter of Mrs. Hubbard, donor of the Hubbard Medal.

#### AMERICAN SWEET PEA SOCIETY'S SHOW.

A meeting of the joint committees of the Newport Horticultural Society and Gardeners' Association of Newport was held recently, which Harry A. Bunyard, secretary of the American Sweet Pea Society, attended. All arrangements were completed for the annual show, which is to be held at the Casino, Newport, R. I., on July 8-9.

The final schedule will be issued about June 20 and may be had by applying to Harry A. Bunyard, secretary, 40 West Twenty-eighth street, New York City. Everything indicates that the coming show will be one of the finest sweet pea shows ever held in this country. Reports coming from the vicinity of Newport say the outdoor sweet peas are looking well in that locality.

Keen competition is looked for, also a large attendance of visiting gardeners from New York and from the New England States. A large delegation from New York will attend the show, leaving on the Fall River steamers on Wednesday, July 7.

#### THE CLEVELAND FLOWER SHOW.

The Premiums Committee of the Cleveland Flower Show has decided to include classes in vegetables in its show. The committee is at work at the present time on the arrangements of the premium list for the vegetable department of the show and expects to have this ready for mailing within a few days. Gardeners desiring to obtain copies of this special list can secure them by addressing Herbert Bate, 356 Leader building, Cleveland.

Plans are on foot to organize personally conducted trips to start from New York, Boston and Philadelphia in the East and Chicago in the West to visit the Cleveland Flower Show. It is expected that there will be enough interested in the Cleveland show from each of these centers to make a special train possible. Further details of these plans will be announced in the July issue of THE GARDENERS' CHRONICLE.

The Cleveland Garden Club, co-operating with the Ohio Horticultural Society and the Cleveland Florists' Club in promoting the Cleveland Flower Show are at work securing a large list of special prizes among their members. This will make the final list of premiums much larger than as announced in the preliminary list.

#### THE NATIONAL FLOWER SHOW.

The National Flower Show Committee met recently in Horticultural Hall, Philadelphia, with Chairman Farenwald presiding. John Young of New York was present.

Practical details for the conduct of the National Flower Show, to be held in Philadelphia March 25 to April 2, 1916, were more or less definitely worked out.

At a meeting with the same committeemen, Mr. Frederick Newbold of the New York Horticultural Societywho did so much towards making a success of the New York Show—was present, and explained in detail the plans and methods pursued by that organization in connec-W. F. Therkildson, tion with the New York Show

Chairman of Press and Publicity Committee.

### NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. I.

#### ASSOCIATION NOTES.

The executive meeting of the association's trustees and directors will be held in New York City early in July to complete plans for the summer meeting to be held in San Francisco during the third week in August next, and also take action on such other business as may be brought before the meeting.

Attention is directed to the following resolution which was adopted by the board:

"In view of the national character of our association, our president has rightly appointed to the Executive Board members residing in all parts of the country. At the same time it is obvious that the attendance of all members of whatever place meetings may be held is practically an impossibility. As it is essential that every member of the Executive Board should take an active interest in the welfare of the association and should have opportunity of doing so afforded him to make suggestions in connection with, and offer opinions upon the policy of, the association; therefore be it resolved, That an invitation be extended to the members of the Board, that when they cannot attend a meeting they submit any suggestions they may have to offer in writing that can properly be brought before the meeting, and, that it shall be given the same consideration as though the member offering it were present in

The Cooperative Committee will submit the proposal received from the Nassau County Horticultural Society, published in the April issue of the Chronicle, at the Executive Meeting in July, which recommends that members moving from one district to another be accepted through transfer from the local society with which they have been affiliated. The committee will also be glad to hear from any of the local cooperative committees on any recommendations that they may have to submit that can be brought before the Executive Board. Communications should reach the committee not later than July 1 and can be forwarded in care of the secretary of the association.

The Committee on Bird Protection reports that it is enlisting the cooperation of the officials of the principal organizations concerned with the protection of birds and that it is meeting with very favorable results. As the success of this committee depends to a large extent on the cooperation of individual members, the committee urges that all members interested respond to the appeal made in its report which was published in the May number of the Chronicle. Communications should be addressed to the chairman of the committee, L. P. Jensen, superintendent of the Busch Place, St. Louis, Mo. A committee consisting of Herman W. Merkel, New York; J. H. Prost, Chicago, Ill.; Theodore Wirth, Minneapolis, Minn.; C. L. Brock, Houston, Texas of the American Association of Park Superintendents has been appointed to cooperate with our committee.

The Essay Committee reports that there has been little or no interest shown to date in the contest for President Everitt's prize, due in all probability to the announcement being made just at the beginning of the busy season. It again directs attention to the contest and to the following subjects:

Class 1-Prize \$35 gold.

Subject—Horticulture as a Profession. From the Standpoint of a Gardener.

Class 2-Prize \$25 gold.

Subject The Proper Grouping and Culture of Trees, Shrubs, Perennials and Annual Bedding Plants in the Ornamentation of Private Grounds,

Class 3—Prize \$20 gold.

Subject—Preparation of Ground for and General Treatment of Hardy Herbaceous Perennials. Naming a list of species (limited to one hundred) providing a succession of flowers throughout the entire season.

Class 4—Prize \$20 gold.

Subject—How to Secure a Year's Vegetable Supply With the Aid of Cold Frames or Hotbeds (but no greenhouses), Including Soil Preparation

The contest will close on October 1, the judges to report their decision at the next convention of the association, to occur the first week of December.

Contestants will address William H. Waite, Chairman of Essay Committee. National Association of Gardeners, P. O. Box 290, Madison, N. J., for further particulars.

There are many members in the association qualified to enter this competition and the committee urges that the members show their appreciation of the President's generosity by entering the competition. Members contemplating attending the summer meeting in San Francisco and accepting the invitation of the American Association of Park Superintendents to join their party in the trip to the coast, should communicate with the secretary without delay so that accommodations may be reserved for them. A brief outline of the itinearary is published on another page in this issue. Complete information and copy of the itinerary will be sent to any member applying to the secretary's office. The party will leave New York on August 7—Chicago August 8 and will be due in New York to return on September 6.

#### AMONG THE GARDENERS

Alexander Michie, formerly superintendent for C. A. Stone, Plymouth, Mass., has been appointed superintendent of the Memorial Cemetery, Cold Spring Harbor, Long Island, taking office on June 1. Before accepting the position Mr. Michie was engaged for several months superintending the landscape work of the cemetery under Olmsted Brothers, Brookline, Mass.

W. R. Fowkes resigned his position as head gardener on the Howard Cole estate, "Brooklake," Madison, N. J., to accept a similar position on the Clark estate, Cooperstown, N. Y. Mr. Fowkes entered on his new duties early this month.

Joseph Dexter, formerly superintendent of the Whitelaw Reid estate, Purchase, N. Y., has taken charge of the private grounds and greenhouses of "Brooklake," the estate of Howard Cole, Madison, N. J.

Harry B. Keiller, who took charge of the Alexander R. Peacock estate, Pittsburgh, Pa., last August, has recently had a fine display of roses in his greenhouse range, which is quite an extensive one. Chrysanthemums and carnations are also extensively grown, and more than a thousand cyclamen occupy the house at the present time.

J. F. Zimmerman, in charge of the old William Carr Estate, Point Breeze, Pittsburgh, Pa., for the past year has been doing some independent work since the death of Mrs. Carr, which has stopped all improvement work for the time being on this estate. He has recently completed the new grounds for James R. Starrett, one of the finest places on Squirrel Hill.

Thomas Hambleton has secured the appointment of superintendent of the Garneau Estate, Kingston, N. J., a new place of 150 acres, on which considerable development work is now under way.

Robert Grindrod, formerly of Greenwich, Conn., has secured the position of superintendent on the 6,000-acre estate of Dr. Clarence Fahnestock, Cold Spring, N. Y., which was recently purchased and on which improvements, both in a horticultural and agricultural way, will be made on a large scale.

# TREE PLANTING BY PITTSBURGH SCHOOL CHILDREN.

Superintendent of Parks George W. Burke is largely responsible for the most generally distributed scheme of horticulture ever attempted in Pittsburgh: the planting of 20,000 catalpa, hard maple and mulberry saplings donated by the city council to the children of the public schools, one to every five children, during the past month. Accompanying each consignment of trees were minute directions for planting, culled from the best knowledge of tree nurseries, assuring a crop of perfect trees in future Not a school in the city was overlooked, those in the congested districts receiving as well as those in the outlying, the only discrimination being as to number according to the neighborhood's availability for tree culture. The distribution included 10,000 catalpas and 5,000 of each maples and mulberries. The tree planting, while the biggest project attempted in the public schools, is by no means all that the schools are doing in the way of planting. For several weeks flowers have been blooming in practically every school in the city. Creation as applied to plant life is a big part of the work in the 92 kindergartens and many flowers and vegetables are growing in gardens surrounding the schools, where there is such space, or in boxes in the windows, or in the backyards of neighbors loaned for the purpose.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. X. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### ASSOCIATION NOTES.

President Amryhn has appointed the following committee to cooperate with the Committee on Bird Protection of the National Association of Gardeners:

Mr. Herman Merkel, of New York, N. Y.; J. H. Prost, of Chicago, Ill.; Theodore Wirth, of Minneapolis, Minn.; C. L. Brock, of Houston, Texas.

The chairman of the committee of the gardeners' association is L. P. Jensen, St. Louis, Mo., who is also a member of our association.

Members are reminded that proposed amendments to the constitution and by-laws must be filed in writing with the secretary, at least thirty days prior to the date of the annual meeting, which will mean July 18.

A copy of all proposed amendments will be published in these columns or sent to each member for consideration prior to the convention.

The secretary has in mind submitting two amendmnts, one a general reconstruction of Article 2, dealing with classification of members in order to make the same consistent with various amendments which have been made during the last few years; another fixing the admission fee at \$10 which shall also cover the first year's dues.

Convention time is fast approaching and there is every indication that the attendance will break all previous records. Persons who intend joining the special train party should notify Herman Merkel, Zoological Park, New York City, who is chairman of the Transportation Committee.

The special train will start from Chicago and eastern parties will try and arrange special car groups to Chicago. Persons from the Middle West can get their tickets via Chicago or Minneapolis and join the main party at those points.

Elaborate preparations for the entertainment of the special train party are being made by our members at Chicago, Minneapolis, Spokane, Seattle, Tacoma and Portland and the Great Northern Railway Co. is going to see to it that our party has a big day at Glacier National Park.

If you miss this special train party you will regret it as it will be the last word in convenience of travel and a trip through a scenic wonderland with stop-overs at cities which have progressed very rapidly in modern park development during recent years. There will also be entertainment free which ordinarily would amount to a hundred dollars of expense. Remember that your relatives and friends or members of kindred organizations are welcome to join this party and take advantage of these features.

Secretary Cotterill met with the local committee at San Francisco on the 14th inst. and completed all details of arrangements for the convention. A preliminary program and circular of information will be sent to all members, prospective members and various Park Boards, about July 1, and it is to be hoped that this will result in arousing interest in the trip.

Just east your eye over this list of horticultural and pomological conventions which will meet in San Francisco at about the same time:

August 12-14, Pacific Coast Association of Nurserymen; August 17-20, American Rose Society; August 17-20, Society of American Florists and Ornamental Horticulturists; August 17-20, National Association of Gardeners; August 18-20, American Association of Park Superintendents; August 23-25, American Pomological Society. These conventions will undoubtedly bring together the greatest assembly of men of kindred professions in the history of the country.

Here is a point to remember when buying your ticket, if you intend to visit the San Diego Exposition. San Diego is a side trip from Los Angeles and not on the main route and it is necessary to get a special stub-ticket, which will cost you nothing extra, but you must demand and procure it at the time and place where your general ticket is purchased. Get this ticket whether you intend using it or not, as you may change your mind when you learn of the remakable horticultural exhibit at San Diego. The exposition is located within one of the city parks and the exhibits and land-scape work are something which every park man should see.

St. Louis is the first city to file an invitation for the association to hold its 1916 convention in their city. Ernest Strehle, Superintendent and Nelson Cunliffe, Commissioner, join in extending a very cordial invitation and promise entertainment and instruction which will long be remembered.

Members who can and will deliver papers or addresses at the convention are requested to send the information and the subject to the secretary at once, in order that the information may be included in the preliminary program which will go to press about June 25. Select your own subject but make it something of general interest and not merely a local review, also be prepared to handle all questions which may come up in the discussions which follow.

There has been some complaint that at recent conventions we have had so much entertainment and so little of papers and discussions, that this year the officers have decided upon a full day and evening for this purpose, prior to any sight seeing trips or social functions, so it is up to the members to supply the material. Now don't be modest, decide on what you can write or say that may be helpful to the others and notify the secretary at once.

#### PARK DEPARTMENT PERSONALS

The annual repot of the Minneapolis Park Commission, issued recently, is without a doubt the most artistic publication of its kind put out by any city in the country. Brother Wirth has had a great opportunity in Minneapolis and has been fortunate in having back of him a fine Park Board and a most loyal and efficient organization, the result being quite apparent to any one who has visited Minneapolis and inspected its wonderful park sytem.

It certainly pays to advertise and the type of annual report by the Minneapolis Park Board, inspires confidence and wins support at home and also exploits the city abroad.

Richard Iwerson, formerly of Calgary, is now stationed at the Washington State Reformatory at Monroe, Washington, as land-scape engineer.

Andrew Balmer, formerly of Vancouver, B. C., is also stationed at this fine new institution and when they write the secretary they accuse him of trying to place our Canadian brothers in the reformatory. However, they have a fine opportunity to develop the grounds of what is going to be one of the finest institutions of its kind in the country.

The St. Louis Park Department Association is an organization which might well be patterned after in other cities. This association has 300 members, all employes of the St. Louis park department and was organized over two years ago for the purpose of promoting good fellowship and efficiency in the department. Instruction classes, lectures, debates and social functions all contribute towards this end and are producing wonderful results.

Ernest Strehle, local superintendent and one of our members, was the organizer of this association and Dwight Davis, former Commissioner and L. P. Jeusen of Busch Park, also members of our Association, were important factors in the building up of the organization. We hope to have a paper on this subject presented at the convention by one of these men.

James O. Convill, the new superintendent at Portland, Oregon, Thomas W. Shimmins, superintendent of Cameron Park, Waco, Texas and John D. McEwan, superintendent of Queensborough, New Work City, have filed applications for membership and will attend the San Francisco convention.

Remember the mark has been set at fifty new members for this session, so get busy and do your part.

Portius C. Deming, president of the Minneapolis Park Board, has just completed a tour of the Pacific Coast and Messrs, J. W. Thompson and Secretary Cotterill were graced by a few days visit at Seattle. We feel sure that Mr. Deming will testify that the Association is making no mistake in having its special train party visit the Pacific Northwest.

Martin C. Ebel, editor of the CHRONICLE, spent a day with President Amrylin last month and had an opportunity to inspect the beauties of the New Haven park system. The secretary hopes that he was also able to induce Mr. Amrylin to contribute something to these columns in the future, a pleasure we have been denied heretofore.

#### PARKS AND THEIR USES.

The word "park" originally in English referred to a place for the preservation of deer for the chase, and was characterized by broad stretches of pasture and woods and contained ponds or running water, rustic bridges, thickets of bushes, water, trees, etc. But of late years the word park may designate the grounds surrounding a private estate, a recreation ground known as a large rural park, a small city park, a neighborhood pleasure ground, a square, a place or a garden, parkways or boulevards or outlying reservations; in fact, the word may mean almost any form of a recreation place where trees and shrubs form a part. One of the practical things a park man should understand is the proper use of each of the foregoing places.

Our large Chicago parks were originally intended as breathing spots, where the tired business man or city worker could relax by strolling, picnicing or driving, sit on grass or otherwise enjoy and rest himself in a quiet way, and very little attention was given to space for such games as tennis, baseball, golf, etc. As the city continues to grow the demand for space in our parks for these games is continually increasing until a point has been reached where the original purpose of the park is lost track of and the large parks, such as Lincoln, Jackson, Washington, Humboldt, Garfield and Douglas are rapidly being converted into playgrounds. I believe that this is wrong and that no more space should be alloted in these parks for games for the following reasons, unless, of course, more space is provided. We have nine classes of park visitors, as I see it, as follows:

Class 1—Children, boys and girls, up to 12 or 14

vears of age.

Class 2—Young men and young women, from 14 to 21 years of age, not accompanied by parents.

Class 3—Adults, couples of men and women or

company.

Class 4—Adults, men, single or in groups of two or more.

Class 5—Adults, women, single or in groups of two or more.

Class 6—Family groups, man, wife and children, or picnic groups.

Class 7—Automobile drivers and those using conveyances.

Class 8—Equestrians.

Class 9—Invalids and old people.

Taking all of the foregoing classes into consideration, it is obvious that no one park, even of a very large extent, can furnish adequate accommodations for all, especially when you take into consideration the many forms of recreations usually pertinent to a large park, such as band concerts, croquet, roque, casting clubs, rowing, boat clubs, archery, bicycle races, large picnics, bathing, celebrations and many other forms of recreative events which bring together at one time large groups or crowds in addition to the visitors who are interested only in floral displays, the zoological garden and similar attractions and those who simply pass through the park on their way to and from work or for other reasons.

The main purpose of a large city park is to furnish a means of relaxation to the great mass of city toilers from the routine of city life and who find recreation in simply strolling among the trees and flowers, rest the eye on green grass, breathe the fresh air and return to the crowded homes refreshed. Since the great growth of population, and perhaps great growth of

popularity of our large parks were not adequately conceived, or, for other reasons, we now find them too congested for all recreation features, it behooves us, therefore, at this time to study means by which the greatest number of people can find recreation in the limited area available. In order to do this intelligently it is necessary to draw distinct lines betwen play and other forms of recreation. By play I mean tennis, baseball, football or any other form of athletics wherein competition plays a part, also gymnastics of all kinds, etc., etc. For this form of play the park space is limited. By recreation I mean concerts, seeing the animals, seeing the flowers, in and out of the conservatory; picnics, boating, promenading and young couples communing with nature and planning their future.

Having made a careful analysis of the kinds of people who visit the parks and the kinds of games played and the various recreations sought, we next proceed to divide all play and forms of recreation into two classes.

These games and forms of recreation which can be best enjoyed and managed in a limited area should be confined to small parks, school buildings, field houses or vacant lots, and the other forms of recreation are those that can only be carried on in a large park. The result will show that the small parks and playground movement is of the greatest importance, because, as I said before, the areas and facilities in large parks are limited, while the field for advancement in the playground movement can go forward for many years, or as long as there is vacant property or property with old, cheap buildings that can be purchased for a reasonable price. Then, too, I believe the public school buildings should be available for many forms of recreations, such as lectures, concerts, meetings and even dances.

While I believe that our present fine field houses now operated by our park systems are none too good for the purpose, the initial expense for these buildings is enormous. If we expect to expand rapidly in the playground movement, we must save our money for the purchase of land for playground field houses and construct cheaper buildings. On the other hand, I also believe that all games and recreations in the playgrounds should be properly supervised and directed, so that children may be taught the value of correct methods and that fairness shall prevail. Without supervision, a playground will soon lose its effectiveness in the community and will be ruled by a few persons or by a gang, who will make others feel that they are unwelcome.

Time will not permit me to dwell longer on this subject. In conclusion, however, there are three points I

wish to emphasize:

First—We must stop crowding our large parks with games and recreations that can better be taken care of in the small playgrounds for the reason that if we continue, the large parks will be ruined for the purpose for which they were originally intended, viz., that of furnishing rest and rural recreation for the great mass of city workers.

Second—When this point is well considered, it will readily be seen that the field of endeavor for our pres-

ent needs lies in the playground movement.

Third—When the dividing line between large parks and playgrounds is closely understood, park workers and playground workers will then join hands and operate in perfect harmony.

[Address by Superintendent E. A. Kanst, of Lincoln Park, Before the Chicago City Club, May 19, 1915.]

# Our Native Birds' Protectorate

Under the direction of the Committees on Bird Protection of the National Association of Gardeners and American Association of Park Superintendents, L. H. Jensen, St. Louis, Mo., Chairman.

#### THE ECONOMIC VALUE OF BIRDS.

Abstracts from Dr. William T. Hornaday's "Our

Vanishing Wild Life.'

"TO MY FRIEND THE EPICURE: The next time you regale a good apetite with blue points, terrapin stew, filet of sole and saddle of mutton, touched up here and there with high lights of rare old sherry, rich claret and Dry Monopole, pause as the dead quail is laid before you. on a funeral pyre of toast, and consider this: 'Here lies the charred remains of the Farmer's Ally and Friend, poor Bob White. In life he devoured 145 different kinds of bad insects, and the seeds of 129 anathema weeds. For the smaller pests of the farm, he was the most marvelous engine of destruction that God ever put together of flesh and blood. He was good, beautiful and true; and his small life was blameless. And here he lies, dead; snatched away from his field of labor, and destroyed, in order that I may be tempted to dine three minutes longer, after I have already eaten to satiety.' Then go on and finish Bob White.

"The millions of the insect world are upon us. The birds fight them for us, and when the birds are numerous and have nestlings to feed, the number of insects they consume is enormous. They require absolutely nothing at our hands save the privilege of being let alone while they work for us. In fighting the insects, our only allies in nature are the songbirds, woodpeckers, shore-birds, swallows and martins, certain hawks, shrews, bats and a few other living creatures. All these wage war at their own expense. The farmers might just as well lose \$8,250,000 through a short apple crop as to pay out that sum in labor and materials in spraying operations. And vet, fools that we are, we go on slaughtering our friends, and allowing others to slaughter them, under the same brand of fatuous folly that leads the people of Italy to build anew on the smoking sides of Vesuvius, after a dozen generations have been swept away by fire and ashes."

"In view of the known value of the remaining trees of our country, each woodpecker in the United States is worth twenty dollars in cash. Each nuthatch, creeper and chickadee is worth from five to ten dollars, according to local circumstances. You might just as well cut down four twenty-inch trees and let them lie and decay, as to permit one woodpecker to be killed."

#### WIN BACK OUR NATIVE BIRDS.

By Joseph H. Dodson, Illinois.

The great awakening all over this country to the importance of saving our native birds is particularly interesting to all who have gardens. The birds are Nature's own agents to help us protect and improve our gardens. But for our native birds the insects would destroy all growing things. Yearly we have increased our expenditures in fighting insects by sprays and applications of chemicals. Altogether there are millions of dollars spent in America each year in fighting insects and still not less than \$500,000,000 are lost through the ravages of those insects we cannot utterly destroy. Scientists say the gypsy moth, if unchecked, would completely defoliate all the trees in this country within eight years.

And you know the birds are the best aids to man in fighting this moth. For better trees, better flowers, more and better fruit we need more American birds. And the birds are willing to come, hungry and eager for work in our behalf. How, then, shall we help increase our bird workers?

Our first care should be for the protection of our native birds. Wage the holy war on the English sparrow, the quarrelsome pest that has driven so many of our birds away. Protect the birds from the cats, particularly stray cats. E. N. Forbush, State Ornithologist of Massachusetts, estimates that cats kill 700,000 birds a year in his State alone. The damage done by cats is appalling. Red squirrels also war on our birds.

It is very easy to trap English sparrows and to trap

cats.

A bird bath is one of the very best means of attracting birds. They are not costly if bought ready made, not hard to make for yourself. The birds love to frequent the gardens where a bath is always ready for them; particularly if they are given protection against cats.

For twenty years I have studied and worked for birds. During that time I have discovered, by actual experience, just what these dear little fellows want in the way of houses and shelter shelves or invitations to nest.

In choosing the kinds of houses you are going to put out, you should consider first the birds which usually come to your neighborhood every year. Wrens, bluebirds and purple martins are generally found in most neighborhoods and these birds are very easily won to suitable houses. Robins, cat birds, cardinals, grossbeaks. brown thrashers and scarlet tanagers can be attracted by a sort of shelter shelf, in which they build their nests. Chickadees, flickers and tree swallows can all be attracted by the houses particularly adapted to their needs. The purple martin usually arrives in the Central States about the end of April. Martins, as you may know. travel and live in great colonies, sometimes as many as 100 birds living in one house. This is one of the most sociable and delightful American birds because you can win so many of them to live together, and then they are really the most valuable bird we have as they get their food, which consists mostly of mosquitoes, entirely out of the air. The experience of a Chicago bird lover is interesting and typical of many others in attracting purple martins. He was pressed for time and tossed a recently finished martin house upon the roof of a shed, intending to place the house upon a pole later on. That evening he returned to his house through an April storm of rain and sleet and was astonished to behold a flock of martins sitting on the telephone wires, apparently attracted by the new house which still lay upon the shed. Several passing teamsters noted the pitiable condition of the freezing birds and offered to raise the house for them. Tools were quickly brought and in a few minutes the united efforts of the kindly workmen had swung into place the heavy pole with its handsome bird-house on top. While the last brace was being spiked to the shed, the birds seeming to know that the house was for them, darted eagerly into the dripping shelter. They were quite fearless of the men on the roof of the shed and their twitterings of contentment could be distinctly heard. The house has been inhabited each year ever since, although it is right in the heart of the city now

and surrounded by large buildings and several huge smoke stacks.

Nearly all of my bird houses are of wood because I have found in long experience that the birds prefer this material. I have a martin and a wren house that have been up for 19 years and they are occupied every year and are in as good condition as when erected. The martin and bluebird houses should be erected on a pole, although I have won bluebirds by a hanging house as well as by one on a pole.

Here are a few general rules which should be observed when you make or set a bird house:

First: All bird houses should be at least a little weather-worn for all birds look with suspicion upon newness and abhor fresh paint. Yet the house should be well painted so it will last as after being once occupied the occupants will return to it every year and they will expect the same house and if anything should happen to the house or it were substituted by a new one you would lose your birds, sure.

Second: The house should be so placed that there will be as little danger as possible from that great enemy of all birds—the domestic cat.

Third: The openings in the houses should be of the following dimensions:

Martin houses,  $2 \times 2$  inches or  $2 \times 2\frac{1}{2}$  inches.

Wren houses, 15/16 ths of an inch.

Bluebird houses, 1½ inches.

Flicker houses, 23/4 inches.

Tree swallow house, 1¼ inches.

Fourth: Provide by all means, one bird bath in a sheltered place, preferably in some spot where you can have the great pleasure of watching the birds bathe and at the same time protect them from the danger of cats.

Fifth: Proper height for houses: The purple martin, which lives in great colonies numbering from 20 to 100, desire a house not less than 16 feet in the air. It can be higher but must not be lower. I have a house for martins which has 26 rooms and stands on a pole 16 feet high. There are more than 100 martins in this house every summer and the same birds come back to me year after year. I know this because I band a great deal of them. The proper height for the wren house, which should be hung from a tree or projection from some building, is about 10 to 12 feet. The proper height for a bluebird house, which should be placed on a pole, is 12 to 16 feet.

Don't imagine that because you live in the city or busy town that you cannot win native birds. There are birds near you and you will be surprised how readily they discover an attractive house so placed that they can with safety take it as their own and while I myself live in a suburb of Chicago, I am really in the city as my home is just over the line and as many as 1,500 autos an hour pass at certain times of the day. I have only one acre of ground, yet I have 54 bird houses, numerous shelters, food devices, baths, etc., in this garden and have from 300 to 500 native birds living on my property every summer. I have from 50 to 75 birds who stay with me all the year around. Birds do not freeze as many people suppose—they suffer and die from hunger. If they could get something to eat they could stand any cold in the winter, as their little hearts beat just twice as fast as ours. By providing them with shelter and food in protected food devices, I am enabled to keep them with me the year around.

I never have to spray or treat my fruit trees or plants. My birds take care of them for me.

# DEVELOPMENT WORK OF UTICA, N. Y. PARK SYSTEM.

The Utica Park Commission has been making earnest endeavors through initiating condemnation proceedings and otherwise to acquire land needed to complete the westerly link in the Utica Parkway now three and one half miles long. The last link is economically of vast importance to the city because it will connect the main thoroughfare of Utica, Genesee street, with the state roads and country to the southwest, cause the most beautiful hills around Utica to be built up, help keep taxrate down, through an increased valuation of property estimated to be—when parkway is completed—about 600 per cent. as as been the case with previous construction. A magnificent viaduct similar in appearance to the celebrated Luten Designs has already been erected in the westerly link across the railroads leaving Utica for the South and West.

The four new sanitary toilets constructed last year are ready to operate. They are solid concrete, with red asbestos shingles and brown trimmings. The ones in the parks are being concealed with mounds, trees and shrubs, giving, in effect, a semi-cave appearance.

The tennis courts are more popular than ever, as is the deer run. These animals, and the Opossums, Black Squirrels, wild rabbits and Pheasants are proving a source of great pleasure to the people.

The Park Commissioners hope to secure other deer, bears, racoons, and gold and silver pheasants as they

are able to construct enclosures for them.

Mr. Thomas R. Proctor, the public spirited citizen, who gave these large Utica parks to the city, has recently constructed a modern, up-to-date, exquisitely landscaped park, which he has named after his brother. This park is full of interesting, natural and formal features, is part hills, part valleys; full of streams, lakes, natural springs; contains swans, etc., a glorious pinetum and arboreal collection of hardwoods. Mr. Fred T. Proctor has just completed a most beautiful formal entrance on Rutger Boulevard using two ornamental columns of finest cut stone one each side of the entrance.

The Park Commission, a year ago, granted the use of a famous, old house, built chiefly from black walnut—now park property—to the boy scouts of which there are several flourishing troops here in Utica. The members of the Utica Park Commission are, F. E. Thomas, chairman; Tom W. Johnson, W. C. J. Doolittle, E. B. Townsend, secretary; E. M. Swiggett, superintendent of parks.

#### A UNIQUE PROPOSITION.

A new feature in future work will be the co-operation of the city parks with the Houston florists along a plan outlined by Park Superintendent C. L. Brock, who made an offer to the florists' club that all florists would be given bedding space in the parks where they could plant such stock as they desired, and the park gardeners would cultivate it for the additional beautification of the parks. The stock would remain the property of the florists who put it there, with the understading that in the fall they could take cuttings from the plants useful to them in propagaing during the winter in their greenhouses. It is understood several of the members of the clubs will avail themselves of this offer.—Exchange.

Send your subscription to begin with July number to THE CHRONICLE PRESS, Inc., Publishers The Gardeners' Chronicle of America 286 Fifth Avenue, New York

# Ornamental Fowl for Parks and Gardens

A MONTHLY TREATISE ON THEIR CULTURE.

#### BREEDING AND REARING PEACOCKS.

By John W. Talbot.

Peacocks were brought from the East Indies, where they are still found in vast flocks in a wild state. The head of the bird most familiar to us is adorned with a tuft of 24 feathers whose shafts are entirely bare, tipped with eyes of green and gold. In the male the head, throat, neck and breast are a deep blue, adorned with green and gold. The greater coverts and bastard wings are a reddish brown, as are also the quills, some of which are variegated with black and green. The belly and vent are black with a greenish hue. The distinguishing feature of this bird is its train which rises just above the tail, and when erected forms a fan of the most splendid hues. The two middle tufts are sometimes four and a half feet long and the others gradually diminish on either side, the shafts white and furnished from their origin nearly to the end with parted filaments of different colors, ending in a flat vane decorated with what are called The real tail consists of short, stiff, brown feathers which serve as a support to the train. When excited or in the presence of his female, the peacock erects his train and displays its beauty. All his movements are full of dignity: his head and neck bend nobly back, his pace is slow and solemn and he frequently turns slowly around as though to catch the sunlight on every side and show new colors of unequalled beauty, accompanied by a hollow murmuring sound expressive of desire. The cry of the peacock at other times is oft repeated and is very strident and disagreeable. The plumes are shed every year and while moulting the bird, as though humiliated, retires from view. In the female the neck is green and the top of the head is brown.

The rearing of peacocks requires the care of the gentle house holder. The bird wanders about safely without a keeper and when allowed proper range acquires for itself the greatest part of its nourishment. The females hatch, rear and feed their own young with very great care and success. The eggs of the peacock should not be hatched under other birds, nor should attempts be made to raise them except where the raising is done by the mother bird. Anyone raising or keeping peacocks should, by giving a signal at a certain time of day invariably call together the whole flock near the house and throw to them a little barley or pieces of bread or cake, corn bread or anything for which they develop a liking. The birds in time will become accustomed to this treat and will look forward to it and it will be found to keep them tame and kindly. They should never be driven or scared where it is not absolutely necessary, as this has a tendency to make them wild. In the breeding time the males sometimes become pugnacious and highly combative. One male may be mated with five pea hens. Their lodging places should be entirely free from moisture and the perches should be made movable so that they can be removed for the time when it is necessary to sweep and clean the building and floor. The males do not breed until fully matured and they do not mature until they are three years old. They may be fed anything that is good for chickens.

The young birds are a delightful table luxury. Many complain that the peacock is vicious and troublesome where kept with other poultry and that he often chases and kills young chickens and even the older hens, and

destroys eggs and eats them, but the writer's experience has been the contrary. We have never found that the peacocks annoyed the chickens, although kept with them constantly. In fact they were much kinder to the chickens than turkeys.

At the breeding season the pea hen seeks retired places for her nest and avoids as much as possible the intrusion of the male, who is apt to destroy the eggs and nest. She lays from five to seven eggs of a whitish color. Mr. Wilson had one pea hen that laid at one clutch as many as twelve, out of which he was so fortunate as to hatch seven chicks. The young are easily reared, especially on a dry fertile soil, where the pea hen can have the shelter and range of a shaw, hedgerow or wood, as well as pasture land. The pea chicks will thrive on the same kind of food as young turkeys. When well grown they should have a variety of grain, but about the breeding season more barley, which has a tendency to make them salacious and to increase the fertility of their eggs, as well as the number. The young keep with the old birds throughout the year, and are seldom driven off until the next breeding season. The peacock does not obtain his full adornments until the second year and is at his best in the fourth, fifth and sixth. It is said to be a very long lived bird, one hundred years a possible age, but, although I have made many inquiries, the limit so far has been from twenty to twenty-five years, and even that has lacked proof. The flesh of the old birds is dark, hard, harsh, dry and unless very fat almost tasteless, while that of the peahen at about twelve months is good and gamey, and the peachicks, when properly cooked and served, are exceedingly palatable. As they are by no means expensive or troublesome to rear, it is surprising that so few are kept for commercial purposes.

The feathers of the peacock are of some value. The quills of both cock and hen are still in demand for decorative purposes. The utmost cleanliness is necessary for these fowls, and fresh water must be given them at least once a day. If kept in confined runs they require green food daily, such as cabbage, lettuce, green oats and corn. Such weeds as cow parsley, etc., are good.

#### THE BIRDS OF BROOKLINE, MASS.

The town of Brookline, Mass., a suburb of Boston, has given the whole country a lesson in the value of birds. Its streets were lined with beautiful shade trees, but the moths and beetles were destroying them. Spraying the trees did no good. And then a man who knew what he was talking about, said:

"Let's bring the birds back; they'll attend to the worms and bugs."

He was allowed to have his way. The first thing he did was to have ordinances passed imposing severe penalties upon anyone who shot at or frightened a bird, and appointing a bird warden to enforce those laws. He put bird boxes in the trees, fed the birds regularly in winter and enticed them in other ways and the birds came, whole colonies and flocks of them. And the tree worms and beetles went.

A report just issued says: "Last year the town's sixty-five miles of streets showed no webs of the tent caterpillar and no signs of leopard moths, gypsy moths or beetles, though these insects were an abominable nuisance in nearly all sections outside."—Kansas City Star.

#### QUERIES and ANSWERS

We believe the greatest good can be accomplished for the greatest number, by instituting a query column; or an exchange of experiences, on practical propositions, by our readers.

You are invited to contribute questions, and answer others.

Each question as received will be given a number, the questioner's name will not be published, but the source of the answer will be given unless otherwise requested.

We all have something we would like to know more about. Here is your opportunity to ascertain somebody's experience in just that matter.

Nothing will tend to better fellowship than helping each other. Take advantage of this "Question Box."

While I find no difficulty in securing remedies to combat the many insects that infest our gardens, I have not, however, been able to learn what produces these insects and what, if anything, can be done to prevent their appearance. The black aphis appears to be our worst enemy this season. It has severely attacked an Euonymus bush which was transplanted this winter near some lilacs. The lilacs are not attacked and I do not recall having found any insects on this Euonymus before. Sedums are attacked by the black aphis while poppies, and columbines planted close by are free of them. We have had green aphis on some of our plants in past seasons, but this is the first year of the black aphis, while the green aphis seems absent. What explanation can you give me as to the cause of this invasion on some of our plants while others, usually subjected to insects, seem free of them so far this season.

It is only after a most fundamental study of the relation of the in-ect- and its enemies to the factors of climate that one would be in a position to answer the question which your correspondent asks. With a few exceptions no studies of insects have gone as far as this. No doubt the appearance and disappearance of almost any species of injurious insect which is followed closely enough year out and year in could be explained. In fact, I think that any entomological department with sufficient competent help might so scout the state that a knowledge of the status of all the principal injurious insects could be maintained and that the probability of an outbreak of this or that species could be forecasted with a reasonable degree of certainty, and that fairly adequate measures for its control could be taken in time. The maintenance of a scouting service of this sort would entail an expense which a State is not willing to bear, and we are therefore largely limited to the discovery and dissemination of measures of control. Your correspondent should be glad that efficient measures of control have been worked out for most of the injurious species. I am merely able to say that some condition in the aphis environment-natural enemies or unfavorable climate factors, or lack of food supply, or one or more of these factors operating together have caused the reduction of the green lice and favored the production of the black lice. ENTOMOLOGIST.

Will you please give me a few directions for the culture of sea kale in this country? . English directions do not seem to suit this climate. .I treat my plants very much like rhubarb in the spring but the stalks are thin, tough and somewhat bitter. The plants are three years old with the exception of about half a dozen which are no larger than the younger plants.

Sea kale is very easily grown if given a sunny position in the garden, and given well manured ground to grow in. The most satisfactory method of propagation is by means of root cuttings taken from forcing sized roots. These may be taken when forcing begins say in November and made: then stored in damp sand in the storage shed until spring, when they will be planted in the garden.

These soon start into growth and often make many growths. which must be thinned to the strongest one. If well grown these root cuttings may be forced the following year; and if a regular supply is made and planted each year, a good supply of forcing roots is maintained.

To grow sea kale from seed is a simple method, but takes one season longer to acquire forcing sized roots. Sea kale is as easily forced as Whitloof chicory, and may be treated in the same manner.

Place the roots around the edge of a deep flower pot, a few inches apart in leaf soil, with an inverted flower pot of the same size over, and place in a temperature of 65 degrees or 70 degrees. If the roots have been previously subjected to a freezing temperature they will respond very quickly.

Place the roots in heat every two weeks for succession.

T. E. R.

Can you let me know how to get rid of dandelions in lawns? They cannot be taken out by hand as the lawns are infested with too many of them. Do you think that we could get rid of them by plowing up the lawn, harrowing and raking it and then seeding down in September or would it be better to take a crop of buckwheat or something else before seeding down? T. K.

Before going to the radical cure of plowing up your lawn, is, it not possible to get rid of your dandelions by means of the poisoned dart. We used one of these instruments with great success. They are made by an English firm, but can be secured from Henderson's in New York, or other large dealers in garden sundries. The instrument is shaped like a long syringe, into which a weed killer is poured. The apex is sharp pointed, and when this point is pressed into the heart of the dandelion a portion of the liquid emerges and kills the plant. A large piece of ground can be gone over in a short time. Afterwards by scarifying the surface, brushing in fine rich soil, using care in watering and subsequent weeding, it might be possible to get the lawn reestablished. Otherwise plow up the ground in August, harrow it and get the roots killed by exposure to the sun and sow down in September. We do not see any benefit in sowing a buckwheat crop in this case. GARDENER.

I was quite interested in reading the criticism of William Gray in your April issue on my article entitled "Traditions of the Fathers." I wonder if Mr. Gray still takes soft wooded cuttings at the heel for such plants as are grown by the millions in the East for bedding plants annually. If he does he utterly failed in comprehending the teachings of Peter Henderson in his book "Growing Plants for Profit." I do not know of a single propagator of Verbenas, Heliotrope, Geranium, Fuchsias and other such plants, making a cutting at a joint for more than twenty years before I came to the State of California, and I have been on the Pacific Coast for eighteen years.

When we want to propagate geraniums here we cut up the whole plant, no matter how hard the wood. We put the cuttings in sand in a lath house, or a frame covered with lath to keep them damp, and they all root if the work is done from June 1 to Novem-

Fuchsias we grow from hard wood cuttings the same as willows are grown in the east. The same method is followed with Lemon Verbenas, Crepe Myrtle, Hydrangeas, etc., etc. Bougainvillesa are grown from old hard wood, from a half inch in diameter to two inches, and they all root, if placed in a glass house or a sash covered frame without bottom heat. To cut the heavy wood of Bougainvillesa a sharp saw is used.

Roses are grown here by the million every year from outdoor plants, never taking a cutting at a heel, and they get from 90 to 95 per cent. to strike. No better stock is grown anywhere.

P. D. BARNHART, Los Angeles, Cal.

Automotion of community and calabi

#### Of Interest to Estate Owners

The National Association of Gardeners maintains a Service Bureau which is at the disposal of all who may require the services of efficient gardeners in their various capacities.

The association seeks the co-operation of estate owners in its efforts to secure opportunities for those engaged in the profession of gardening who are seeking to advance themselves. It makes no charge for services rendered. It endeavors to sup-ply men qualified to assume the responsibilities the position may call for.

Make your requirements known to

M. C. EBEL, Sec'y, National Association of Gardeners, Madison, N. J. 

#### **NATIONAL ASSOCIATIONS**

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st., N. Y.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Gladiolus Society.

L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society.

A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 40 West 28th Florist Exchange Hall, st., N. Y.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

Women's National Agricultural and Horticultural Association.

Miss Margaret Jackson, secretary, Englewood, N. J.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society.

W. G. Carter, secretary, Bernardsville, N. J. First Monday every month, Horticultural Hall, 7:30 p. m., Bernardsville, N. J.

Boston Gardeners' and Florists' Club.

William N. Craig, secretary, Brookline,

Third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Cleveland Florists' Club.

nue, East Cleveland, Oldo.

Second Monday every month, Hollenden Hotel, Cleveland, Ohio.

Cincinnati Florists' Society.

Alex. Ostendorp, secretary, Cincinnati, Ohio. Second Wednesday every month, Jabez Elliott Flower Market.

Connecticut Horticultural Society.

Alfred Dixon, secretary, Wethersfield, Conn. Second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Detroit Florists' Club.

R. H. Wells, secretary, 827 Canfield avenue, Detroit, Mich.

Third Monday every month, Bemb Floral

Dobbs Ferry Gardeners' Association.

B. Harms, secretary, Dobbs Ferry, N. Y. Last Saturday every month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls, N. Y.

Second Wednesday every month except May and June. Poughkeepsie, N. Y.

Elberon Horticultural Society.

First Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Essex County Florists' Club.

John Crossley, secretary, 37 Belleville avenue, Newark, N. J.

Third Thursday every month, Kreuger Auditorium.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass Second Tuesday every month.

Florists' and Gardeners' Club of Rhode Island.

William E. Chapell, secretary, 333 Branch avenue, Providence, R. I. Fourth Monday each month, Swartz Hall.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Gwynn Falls Park, Sta. F. Baltimore, Md.

Second and fourth Monday every month,

Gardeners and Florists of Ontario.

Geo. Douglas, secretary, 189 Merton street, Toronto, Canada.

Third Tuesday every month, St. George's

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Lake Geneva Gardeners' and Foremen's Association.

W. H. Griffits, secretary, Lake Geneva, Wis. First and third Saturday every month, Oct. to April; first Saturday every month, May to Sept., Horticultural Hall.

Lenox Horticultural Society.

G. H. Instone, secretary, Lenox, Mass. First Saturday every month.

Frank A. Friedley, secretary, 95 Shaw ave. Los Angeles County Horticultural Society. Hal, S. Kruckeberg, secretary, Los Angeles, Cal.

First Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachu-

setts avenue, Boston, Mass.

Menlo Park Horticultural Society.

Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Minnesota State Florists' Association.

Gust, Malmquist, secretary, Fair Oaks, Minneapolis, Minn. Third Tuesday every month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Fourth Friday every month, Red Bank. V. J.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Society.

Edward J. Reagan, secretary, Morristown, N. J.

Second Wednesday every menth, except George Masson, secretary, Oakhurst, N. J. July and August, 8 p. m., Madison, N. J.

Nassau County Horticultural Society.

Harry Jones, secretary, Glen Cove, N. Y. Second Wednesday every month, Pembroke Hall, 7 p. m.

New Bedford Horticultural Society.

Jeremiah M. Taber, secretary, New Bedford, Mass.

First Monday every month.

New Jersey Floricultural Society.

Geo. W. Strange, secretary, 216 Main street, Orange, N. J.

First Monday every month, Jr. O. W. A. M. Hall., 8 p. m.

New London Horticultural Society.

John Humphrey, secretary, New London, Conn.

Second Thursday every month, Municipal

New Orleans Horticultural Society.

C. R. Panter, Secretary, 2320 Calhoun street, New Orleans, La.

Third Thursday every month, Association of Commerce Bldg.

Newport Horticultural Society.

Wm. Gray, secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club.

John Young, secretary, 54 W. 28th street, New York.

Second Monday every month, Grand Opera House.

North Shore Horticultural Society.

Leon W. Carter, secretary, Mandlester, Mass,

First and third Fridays every month.

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society.

M. J. O'Brien, secretary, Mt. Kisco, N. Y. Third Thursday every month, except June to August, at 8 p. m.; December to February, 3 p. m.

Oyster Bay Horticultural Society.

A. R. Kennedy, secretary, Westbury, L. I. Fourth Wednesday every month. Oyster Bay, N. Y., 7:30 p. m.

Pacific Coast Horticultural Society.

W. A. Hofinghoff, secretary, 432 Phelan Bldg., San Francisco, Cal.

First Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society.

Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month.

Paterson Floricultural Society.

Sebastian Hubschmitt, Jr., secretary, 61 Seventh ave., Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society.

Morris Country Florists' and Gardeners' David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

Third Tuesday every month Harticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut st. Paterson, N. J.

First and last Friday every month, Working Man's Institute, Paterson, N. J.

#### Philadelphia Florists' Club.

David Rust, secretary. Broad and Locust sts., Philadelphia, Pa.

First Tuesday every month, Horticultural Hall, 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. First Tuesday every month, Fort Pitt Hotel.

#### Rhode Island Horticultural Society.

E. K. Thomas, secretary, Box 180, Kingston, R. L

Third Wednesday every month, Public Library, Providence, R. I.

#### Rochester Florists' Association.

H. R. Stringer, secretary, 47 Stone street, Rochester, N. Y.

Second Monday every month, 95 Main street, East.

Shelter Island Horticultural and Agricultural Society.

First and third Thursdays every month.

Southampton Horticultural Society.

Julius W. King, secretary, Southampton. N. Y.

First Thursday every month, Oddfellows

#### Tacoma Florists' Association.

F. H. Atchison, secretary, South 50th and East F street, Tacoma, Wash. Third Thursday, Maccabee Hall, 11th and C streets.

Tarrytown Horticultural Society.

E. W. Neubrand, secretary, Tarrytown, N. Y.

Last Tuesday every month, 7:30 p. m.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y.

First Wednesday every month.

Washington, D. C., Florist Club.

First Monday every month.

Yonkers Horticultural Society.

Thos. Mahoney, secretary, Yonkers, N. Y. First Friday every month, Hollywood Inn., 8 p. m.

Westchester and Fairfield Horticultural Society.

J. B. McArdle, secretary, Greenwich, Conn. Second Friday every month, Doran's Hall, Greenwich, 8 p. m.

#### GARDEN CLUBS

International Garden Club. Miss Mary M. Kearney, secretary, 123 East 53rd street, New York. Club House, Bartow Mansion, Pelham Bay

Park, N. Y.

The Garden Club of America.

Mrs. J. Willis Martin, president, 1721 Locust street, Philadelphia, Pa.

The Garden Club of Alma, Mich.

Twice a month at members' residences.

The Garden Club of Alleghany County, Pa.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich. Miss Annie Condon, secretary, 920 University avenue.

The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle, secretary, Gladstone,

Second and fourth Thursdays, middle of April to November. August excepted.

The Garden Club of Cleveland, Ohio. Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Mrs. F. K. Holister, secretary, East Hampton, N. Y.

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood, N. J.

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob, At members' residences.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson

P. O., Md. First and third Thursdays, April to December at members' residences.

The Gardeners of Mont. and Dela. Counties, Pa.

Miss Elizabeth D. Williams, secretary, Haverford, Pa. At members' residences.

The Weeders' Club, Pa.

Miss Ellen Winsor, secretary, Haverford, Pa.

First and third Wednesday at members' residences.

The Garden Club of Lake Forest, Ill. J. L. Mayberry, secretary, Washington, Mrs. Tiffany Blake, president, Lake Forest, D. C. ÎII.

> The Larchmont Garden Club, N. Y. Mrs. Edgar Park, secretary, Larchmont, N. Y. First Thursdays.

The Garden Club of Lawrence, L. I. Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass. Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York. First and third Mondays, June to October at Lenox.

The Garden Club of Litchfield, Conn. Mrs. Henry S. Munroe, secretary, 501 W. 120th street, New York. Second Friday, June to October at Litchfield.

The Garden Club of Michigan. Miss Sarah W. Hendrie, secretary, Grosse Pointe Farms, Mich.

At members' homes. Two Spring and one
Fall Shows. Fifty-third street, New York.

Twice a
ton, L. I.

The Millbrook Garden Club, N. Y. Mrs. E. J. Lamb, secretary, 803 State street.

Twice a month at members' residences.

Twice a month at members' residences.

Street. New York. Meet at Millbrook, Dutchess County, N. Y.

The Garden Club of Alleghany County, Pa.

Mrs. F. H. Denny, president. Sewickley, Pa.

Mrs. Benjamin W. Morris, secretary, Mt.

Kisco, N. Y.

The Garden Club of New Canaan, Conn. Mrs. Francis H. Adriance, secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I. Miss Dorothea G. Watts, secretary, Newport, R. I.

Annual Meeting, August. Others called. Five monthly summer shows.

The Newport Garden Club. Mrs. Chas. F. Hoffman, president, 620 Fifth avenue, New York.

The Garden Club of New Rochelle, N. Y. Mrs. Lucius W. Hitchcock, corresponding secretary, Premma Point Park. Members residences and Public Library. Shows monthly, May to November.

The Garden Club of Norfolk, Conn. Philemon W. Johnson, secretary, Norfolk, Conn.

Second Wednesday each month at Public Library.

North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa. Miss Ernestine A. Goodman, secretary, Chestnut Hill.

The Garden Club. Mrs. Aubrey Pearre, Jr., secretary, Pikes-ville, Md.

The Garden Club of Ridgefield, Conn. Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York.

Twice monthly at Ridgefield. Also exhibitions.

Rumsen (N. J.) Garden Club. Mrs. Howard O. Borden, president. Rumsen, N. J.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md.

The Garden Club of Rye, N. Y. Mrs. Samuel Fuller, secretary, Rye, N. Y. First Tuesdays, April to October. Also special meetings and Flower Shows.

The Garden Club of Seabright, N. J. Mrs. H. L. Cranford, secretary, Seabright, N. J.

The Shedowa Garden Club, New York.

Miss Mary Young, secretary, Garden City,
N. Y.

Second Wednesday each month at mem-ers' residences. Vegetable and flower bers' residences. shows, June and September. Correspondence with other clubs invited.

Short Hills Garden Club, N. J. Mrs. C. H. Stout, secretary, Short Hills, N. J. Weekly at Short Hills Club House. Flower Shows April and June, and annual Dahlia Show.

The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W.
33rd street, New York.

Twice a month in summer at Southamp-

The Staten Island Garden Club, N. Y. Mrs. J. Harry Alexander, secretary, Rosebank, S. I.

Twice a month. At members' homes. Winnetka, Ill,

The Garden Club of Trenton, N. J. Miss Anne MacIlvaine, secretary, Trenton, N. J.

Bi-monthly meetings at members' residences.

The Garden Club of Illinois. Mrs. William G. Hibbard, Jr., secretary, Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.

Mrs. Morris Rutherford, secretary, Warrick, Orange County, N. Y.

Warrenton Garden Club, Virginia. Mrs. C. Shirley Carter, secretary, Warrenton, Va.

#### HORTICULTURAL EVENTS

Fourth National Flower Show, under the delphia, Pa., March 25 to April 2, 1916.

International Flower Show, Grand Central Palace, New York, 1916.

American Sweet Pea Society, Special Show, Panama-Pacific International Exposition, San Francisco, Cal., June 4, 1915. Annual Sweet Pea Show, Newport, R. I., July 8- 9, 1915.

American Gladiolus Society, Annual Show, Newport, R. I., August 18 19, 1915. Special show, Atlantic City, August 26 29,

Chrysanthemum Society of America, Annual Show, Cleveland, Ohio, November 10-14, 1915. Special Show, San Francisco, Cal.

Cleveland Flower Show, Coliseum, Cleveland, Ohio, November 10-14, 1915.

American Institute, Annual Chrysanthemum Show, Engineers' Building, New York, November 3, 4, 5.

Connecticut Horticultural Society, Annual Dahlia Show, September 22-23, 1915.

Dutchess County Horticultural Society, Annual Flower Show, Poughkeepsie, N. J., October 28-29.

Horticultural Society of New York, Annual Fall Show, November 4-7, 1915.

Lenox Horticultural Society, Summer Show, Lenox, Mass., July 27-28, 1915.

Morris County Gardeners' and Florists' Society, Annual Fall Show, October 28, 29. Madison, N. J.

Nassau County Horticultural Society, Rose Show, Nassau Country Club, Cove, L. I. Dahlia Show, October 7. Nassau Country Club, Glen Fall Show, October 28-29. Dahlia and Fall Show will be held in Pembroke Hall, Glen Cove.

New Bedford Horticultural Society, Dahlia first. Show in September. Chrysanthemum Show in November. New Bedford, Mass.

New London Horticultural Society, Chrysanthemum Show November 3-4, 1915. New London, Conn.

Newport Garden Club and Newport Horticultural Society, Midsummer Show, August 12-13-14, 1915. Newport, R. I.

New Jersey Floricultural Society, Dahlia and Vegetable Show, Orange, N. J., October 4, 1915.

Oyster Bay Horticultural Society, Spring Show, June 11. Dahlia Show, October 5-6. Chrysanthemum Show, November 2. Oyster Bay, N. Y.

Paterson Floricultural Society, Annual medal, for collection of flowers of her-Flower Show, September. Chrysanthemum, Show, November. Y. M. C. A. Building. Paterson, N. J.

Pennsylvania Horticultural Sweet Pea Show, Jenkintown, Pa., June 23.

Rhode Island Horticultural Society, September exhibition, September 16, 17. November exhibition, November 11, 12. Narragansett Hotel, Providence, R. 1

Southampton Horticultural Society, Annual Flower Show, July 28-29, 1915. Southampton, N. Y.

Tarrytown Horticultural Society, Annual Fall Show, November 3, 4, 5, Tarrytown, N. Y.

Westchester and Fairfield Horticultural Society, Fall Show, Stamford, Conn., November 2-3, 1915.

#### THE HORTICULTURAL SOCIETY OF NEW YORK SHOW.

The June exhibition of this society and of the American Rose Society was held, in co-operation with the New York Botanical Garden, in the Museum building of that institution, on the 5th and 6th. Owing to auspices of the Society of American Flor- the continued cold weather just before the ists and Ornamental Horticulturists, Phila- exhibition, peonies and roses were much retarded in their development. The display of these flowers was therefore relatively small. There was an excellent display of the flowers of shrubs and trees of herbaceous plants, including a large representation of irises. The display of flowers of shrubs and trees made by Mr. T. A. Navemeyer was of especial excellence, containing many unusual things. A large display was made by Messrs. Bobbink & Atkins, including a collection of irises, another of flowers of herbaceous plants, and also an excellent collection of rhododendron flowers. A group of plants, containing fine specimens of Pelargoniums, Calceolarias, Spiraeas, and Fuchsias, was exhibted by Mrs. F. A. Constable, and attracted much attention.

Following is a list of the awards: Collection of flowers, shrubs and trees: T.

A. Havemeyer, A. Lahodney, gardener, first; G. D. Barron, Jas. Linane, gardener, second.

Collection of flowers of herbaceous plants: Mrs. W. G. Nichols, Geo. N. Sullivan, gardener, first; Mrs. L. S. Chanler, E. Wilson, gardener, second.

Twenty-four vases cut orchids, open to all class: Lager & Hurrell, first; Clement Moore, J. P. Mossman, gardener, second.

Twelve vases cut orchids, non-commercial class: Mrs. Harold I. Pratt. A. J. Manda, gardener, first.

Three white peonies: T. A. Havemeyer, first. Three pink peonies: T. A Havemeyer,

first. Three rose peonies: T. A. Havemeyer,

first. Three crimson peonies: T. A. Havemeyer,

Collection of single peonies: T. A. Have-

Collection of peonies: T. A. Havemeyer,

Twelve vases hybrid tea roses, outdoor grown: Gen. E. A. McAlpin, J. Woodcock, gardener, first.

Vase hybrid tea roses, outdoor grown: Gen. E. A. McAlpin, first: Wm. Tricker. second.

The following special prizes were also awarded: Mrs. F. A. Constable, for a col-lection of flowers of herbaceous plants. eash: J. A. Manda, for new Swainsonia, Mrs. Jos. Manda, certificate of merit: Bobbink & Atkins, for collection of irises, silver

baceous plants, silver medal; for collection of rhododendron flowers, silver medal, for collection of flowers of shrubs and trees, special mention; Mrs. Marie Cullen, two vases roses, special mention; John Lewis Childs, for collection of irises of Germanica type, silver medal, for vase of Paeonia Mad. Coste, special mention; A. N. Pierson, Inc., for vases of roses in variety, silver medal; Wm. Shillaber, J. P. Sorenson, gardener, vase of sweet peas, special mention: Miss M. T. Cockcroft, Adam Paterson, gardener, vase of Spencer sweet peas, silver medal; Wm. Tricker, for collection of miscellaneous herbaceous plants, cash, for water lily, Mrs. Woodrow Wilson, certiwater My, Mis. Woodrow Wilson, Certificate of merit; Mrs. F. A. Constable, for group of plants of Pelargoniums, Calceolarias, Spiracas, and Fuchsias, cash; Wm. Ziegler, Jr., A. Bieschke, gardener, for sport of Dorothy Perkins, special mention.

The Bronze Medal of the American Rose Society was awarded to Gen. E. A. McAlpin for the best vase of hybrid tea roses, outdoor grown.

The judges were: A. J. Manda, Wm. Tricker and John Scheepers.

Mr. Robert Pyle, of West Grove, Pa., entertained an appreciative audience during the show with an illustrated lecture on "Rose Gardens for all the People." This was held in the lecture hall of the building and was well attended, it being estimated that there were nearly two hundred and fifty people in the audience. Mr. Pyle took the opportunity to urge the establishment of a public rose garden in New York City which should be in keeping with the great metropolis of this country.

GEORGE V. NASH, Secretary.

#### MENLO PARY (CAL.) HORTICULTURAL SOCIETY SHOW.

The first spring show that has been held under the auspices of the Menlo Park Horticultural Society took place here May 20. The show was only of one day's duration, but it proved to be a great success, in spite of the very inclement weather which has prevailed in this locality of late. The exhibits were large and varied, and it proved conclusively that the growers and private gardeners, and also the members of this society, can do things even if the weather conditions are not all that is to be desired. The display of Spencer sweet peas surpassed all expectations, and some grand stock was on view. Out-door roses also were shown in great variety, and proved to be a great attraction. The flowering shrub section was very excellent, considering growing conditions, as also were the displays of perennials and annuals.

The sweepstakes gold medal, awarded to the exhibitor winning the most first prizes, was awarded to the Lynch Nursery Company of Menlo Park, Cal. Special mention must be made of the grand new roses shown by George Nunn and the splendid exhibit of pot gloxinias by Joseph Paneicka, gardener to Mrs. Charles G. Lathrop. Paneicka's tuberous begonias, as well as his Spencer sweet peas, were very fine. John W. Daly, gardener to J. Lewy Nickel, showed a splendid lot of Burbank's new hybrid amaryllis; also, perennials and flowering shrubs. John Patterson's sweet peas showed splendid culture and the same can be said of his show of flowering shrubs.

David Bassett's roses in the collections carried off first honors, and it was an award well bestowed, as they were grand. The pansy display was a feature and the competition very keen. First honors went to Edward O'Neill, head gardener to the TalPlan for the Color-Glories of late Summer. Nature will supply the golden background for

# Shorburn's Seeds

PICTURE the rich crimsons, the fiery scarlets, the refreshing lavenders.

Whether you are planning color beauty for rockwork, sub-tropical garden, flower spray, shrubbery or background, we have the seeds for you.

Even if you are a very experienced gardener you will be surprised at the novelty and variety of seeds we have to aid you in carrying out the color pictures in your mind's eye.

We have a catalog for you too. Let us have your name so that we may send you a copy. Write

#### J. M. THORBURN & CO.

53U Barclay St., through to 54 Park Place NEW YORK



hibit. An award of merit was given to the Walker estate for a magnificent show of Silver Pink antirrhinum; these were very beautiful and splendidly grown. David W. Spalding, showed Slade, gardener to S. some of the finest digitalis ever seen in this locality. Henry Wright's exhibit of roses was greatly appreciated by the visitors.

Several awards were made for displays of wild flowers arranged by children, and there were quite a number of exhibits not entered for competition, chief among which was the carnations of Henry Goertzhain of Redwood City. Sidney Clock officiated as judge, and all his decisions were well re-

At the next monthly meeting of the society a smoker will be held and the society takes this means of inviting any member of the craft who should happen to be in this vicinity at that time. The date is June 10. As yet this society is undecided as to where the fall show will be held. As there is no hall of suitable size in Menlo Park it will probably be held in Palo Alto again this year. The members of this wideawake organization have long held the dream that some day the society would own its own building, but owing to various reasons that time has not arrived as yet. Arrangements will be made shortly for the annual outing, the one day that every member looks forward to with pleasure.—Ameri-

#### NEW LONDON HORTICULTURAL SOCIETY.

The regular monthly meeting of the New London Horticultural Society was held in its quarters in the Municipal building, State street, Thursday, June 10, a large number being present. In the absence of Mr. Martin C. Ebel, who was prevented by illness from fulfilling his engagement, Mr. Wallie Cook, of New York, gave a short talk on "Perennials, Their Season of Flowering. and Varieties Suitable for Amateurs to

Ernest Robinson, of the Plant estate, exhibited some nicely-grown Golden Glow Mums; also Carnations, Sweet Peas from outside were shown from the Harkens esthe noted wild garden of Mrs. Guthrie, "Meadow Court," John Maloney, gardener. A rising vote of thanks was given to Mr.

Cook for his talk.

A Rose show will be held in the Court House, Tuesday, June 22. This being the first attempt of the society in giving a Rose show, it is to be hoped the same will prove a success to it.

Owing to your correspondent being very busy last month, the report of the May meeting was omitted. Mr. Robinson, of the Plant estate, gave an address on exhibition Chrysanthemums at that meeting, a good number being present, followed by the usual STANLEY JORDAN. discussion.

### SHORT HILLS (N. J.) GARDEN CLUB

a number of types of new roses, were shown visitors pronounced the vegetables the best at the first annual spring flower exhibit of the Short Hills Garden Club, Short Hills, Gregor and Everitt acted as judges and N. J., on Wednesday, June 9. There were turned in the following list of awards: about twenty-five exhibits. It is planned to hold similar events annually. This, however, will not interfere with the annual fall, exhibit of dahlias held by the club.

The exhibit was considered exceptionally good when recent weather conditions are

bot C. Walker estate, for a magnificent ex- and Spanish. Mrs. John A. Stewart, Jr., exhibited German iris, which took up the space of a single table apart from the other exhibits. There was a variety of color, lavender, white, yellow and pink.

There was a large assortment of a new variety of roses. What was regarded by the women as the most beautiful, was a rose "Madam Herriott." in the exhibit of Mrs. Stephen Nash. Mrs. Nash's exhibit took up almost an entire table.

Two other types of rose exhibited by Mrs. Nash and which received much com-mendation were those named "Mrs. Aaron Ward" and "General Arthur.

Another rose praised was "Madam Pirrie," shown by Mrs. Frederick A. Burlingame. Mrs. Louis P. Bayard's roses, "Bell Seibrecht," "Prince of Bavaria," "Clara Wat-son" and "Edward Meyer," also proved attractive, as did that of Mrs. Frederick L. Rhodes, "Dean Hole."

Mrs. Edward B. Renwick and Mrs. Dean Emery exhibited large numbers of peonies. while the former also had on exhibition two lots of Oriental poppies that proved at-

tractive.

The older types of flowers were represented in the exhibit of Mrs. Edmund N. Todd, consisting of old French damask rose. Mrs. Charles H. Stout exhibited Spanish iris and laurel, while Mrs. Will Bradley had among her exhibit some carmine pillar roses and a quantity of peonies. Mrs. T. C. Satterthwaite exhibited peonies and other exhibits included quantities of laurel, columbine, and larkspur.

#### MORRIS COUNTY GARDENERS' AND FLORISTS' CLUB.

The regular monthly meeting was held on Wednesday evening. June 8, in Masonic Hall, Madison, N. J. In the absence of President Witing, Vice-president Robert Francis occupied the chair. It was decided to hold an out-door rose show on June 17. in Masonic Hall, to which the public is to be invited free, to be followed by a lecture on Roses, by Arthur Herrington.

The date of the Fall show was set as Oct. 28-29. Chas. H. Tutty, who recently returned from California, where he served as one of the international judges at tate; also a very fine display of Lupins from Panama-Pacific Exposition, entertained the members with an interesting talk on the interesting horticultural features of the exposition and California in general. He urged those in position to make the trip to take advantage of the exceptional opportunity to visit the western states at the moderate railway fares prevailing. eific Coast hospitality among horticulturists. he remarked, would not be found wanting.

#### OYSTER BAY HORTICULTURAL SOCIETY SHOW.

The Spring Show of the Oyster Bay Horticultural Society was held in Fireman's Hall, Oyster Bay, on June 11.

In quality of exhibits as well as quantity. this show surpassed all our other spring shows, although the weather has been un-SHOW. favorable. The cut-flower classes were well Early blooms of many varieties, including filled with excellent stock, and the many seen this year. Messrs, Johnston, Mac-

Collection of H. P. Roses-James Duckham, first. Collection of H. T. Roses James Duthie, first; P. J. King, second.
H. P. Roses (white)—James Duthie, first;
Frank Kyle, second. H. P. Roses (pink)—
James Duckham, first; C. Mills, second. taken into account.

Peonies and roses predominated, while there was a large collection of iris, German (white) M. O'Neill, first; Jr. Hethersall,

DORRA

second. H. To Roses (pink)—J. Sorosick, first: M. O'Neill, second. H. Tea Roses any other color—J. Duthie, first; D. Hothersall, second. Vasc Climbing Roses J. Duckham, first. Colloction of Vegetables J. Robinson, first: J. Gibson, second. Lettuce J. Robinson, first: J. Sorosick, second. Cauliflower D. Hothersall, first; J. Robinson, second. Cabbage—H. Gibson, first; J. Robinson, second. Beet—J. Robinson, first; J. Duckham, second. Carrots—J. Robinson, first. Turnque Frank Kyle, first; James Duthie, second. Spinach—H. Gibson, first; A. Walker, second. Asparagus A. Walker, first: J. Robinson, second. Peas -J. Robinson, first; H. Gibson, second. String Beans J. Dackham, first, Radishes—A. Walker, first; C. Mills, second. Cucumbers J. Robinson, first; D. Hothersall, second.

Tomatoes—J. Robinson, first; C. Mills, second. Onions—A. Walker, first; J. Robinson, second. Mushrooms—J. Robinson, first. Strawberries (collection) — James Duthie, first; A. Walker, second. Strawberries (for size)—James Duthie, first. Strawberries (for flavor James Duthie, first: Frank Kyle, second. Dish of any other fruit-M. O'Neill, first. Collection Hardy Flowers —James Duthie, first; J. Sorosick, second. Hardy Flowers-Frank Kyle, first. tion Peonies (six varieties)—J. Robinson, first. Vase Mixed Peonies—J. Duckham, first: J. Sorosick, second. Collection German Iris—J. Duckham, first. Collection Spanish Iris—J. Duckham, first. Vase any Spanish ITIS—J. Buckham, first. Vase Delphiniums Frank Kyle, first; A. Walker, second. Vase Sweet Williams—H. Gibson, first; J. Sorosick, second. Vase Digitalis— H. Gilson, trist; Frank Kyle, second. Vase Campanula Frank Kyle, first; James Duthie, second. Bouquet of Hardy Flowers James -J. Sorosick, first. Specimen Palm James Duthie, first: J. Sorosick, second. Specimen Fern H. Gibson, first. Specimen Fern (any variety)—H. Gibson, first; James first; James Duthie, second. Specimen Foliage Plant not Palm-J. Sorosick, first; H. Gibson, second. Pot Geranium (any variety) -J. Sorosick, first: H. Gibson, second. Any other plant in pot-J. Robinson, first: J. Sorosick, second. Table decoration of Roses (table to seat four people) -A. Walker, first; Frank Kyle, second; D. Hothersall, third. Cultural certificate-John Miller; group of "Mum" in G-inch pots.

There were a number waiting admittance when the show was opened, and the attendance was unusually large all afternoon

and evening.

ANDREW R. KENNEDY, Secretary.

## CONNECTICUT HORTICULTURAL SOCIETY SHOW.

The society held its first spring flower show on Thursday and Friday, the 10th and 11th of this month, in lower Unity Hall, Hartford. The various exhibits were laid out to represent flower beds, some being oblong, others oval, crescent shaped, circles and half-circles. On each side of the entrance leading to the hall were box trees shown by W. W. Hunt & Co. The central exhibit was a towering mass of splendid palms and tropical plants surrounded by a border of maidenhair and other ferns. was staged by President Warren S. Mason, superintendent of the estate of A. A. Pope. Farmington, which was also represented by an attractive bed of perennials, blue lupinus, German and Spanish iris, salvia, phlox and Spanish roses. In passing from one exhibit to another the observer was delightfully charmed with the striking likeness to actual flower beds

W. W. Hunt & Co. had an oblong outline

# Plant for Immediate Effect Not for Future Generations

START with the largest stock that can be secured! It takes over twenty years to grow many of the Trees and Shrubs we offer.

We do the long waiting—thus enabling you to secure trees and shrubs that give immediate results. Price List now ready.

ANDORRA NURSERIES
Wm. Warner Harper Proprietor

Chestnut Hill. Phila, Box O. Pa



## "The Typewriter of Perfect Presswork"

THE flawless presswork of the new Royal Master-Model 10 carries the high-grade business message in as fine form as your thoughts themselves! Royal presswork reinforces the result-getting power of your business-letters—for it adds the forceful stamp of quality to every letter you sign.



Heretofore, you have been obliged to accept a standard of typewriting inferior to high-class printing, yet you would not accept poor printing. But with the new standard of "typewriter presswork" created by the *new Royal* "10," it is no longer necessary to accept inferior typing in your office.

"The Type That Tells" Pick up the letters you have signed to-day. Examine them—then see a sample of the faultless presswork of the **Royal!** On which kind of typing will you send your signature to represent YOURSELF?

Which one will you trust to convey unmistakably to the world the character of your house?

## Get the Facts!

Send for the "Royal man" and ask for a DEMONSTRATION. Investigate the new master-machine that takes the "grind" out of type-writing. Or write us direct for our new brochure, "BETTER SERVICE," and book of facts on Touch-Typing-with a handsome Color-Photograph of the new ROYAL MODEL 10—all sent free to typewriter users. "Write now-right now!"

## ROYAL TYPEWRITER COMPANY, Inc. Royal Typewriter Bldg., Broadway, New York



composed of perennials, including blue and white lupins, various peonies, and the whole rising to a high centre of blue scabiosa. Single and double columbine, anchusa, campanula, buttercups, Jacob's ladder, phlox, and a superb group of Pennsylvania anesweet-william, Iceland poppies, lychins and hardy pinks.

John F. Huss, superintendent of the Goodwin estate, was another exhibitor of a wonderful variety of flowers, the centre of his bed being formed by the unusual yellowish blooms of isatis glaerca. Gorgeous Oriental poppies in red, pink and orange; German and Spanish iris, white and pink, alum root, fox gloves, anchusa, pink and blue lupins, red wiegela, petunias and sweet peas are among the other flowers in the group; and the same exhibitor made the stage a veritable bower with palms, flamingo flower. fancy leaved calladium and pink spirea, with especially interesting primroses never exhibited before, discovered in northern China by Professor Wilson, of Boston.

An effective round bed in which blue predominates was shown by Oscar F. Gritzmacher, of New Britain, anchusa, bachelor's buttons, peonies, double daisies, pansies. roses and Scotch pinks entering into it. A very beautiful round bed, composed of exquisite roses, was shown by Niel Nelson, also containing in the center pink and white enchantress carnations and sweet peas.

A. N. Pierson, of Cromwell, arranged a long bed of roses of all kinds, also displayed twenty-five blooms of each variety of roses grown in the Cromwell Gardens, which made a most charming spectacle. Four tables were decorated by John Coombs, Welch and Louis Chauvy, assisted by Miss Benson, to represent bridal tables. Each was a remarkable creation of beauty.

The design of this remarkable exhibit, which was the principal topic of discussion in Hartford the past week, was the creation of Mr. Walter A. Cooke, of the house of Stumpp & Walter Company, and the society takes this opportunity to thank the gentleman for his assistance in making our first spring show a grand success. The following are the awards and judges:

The judges of perennials were: Mrs. Samuel O. Prentice, Mrs. Morgan G. Bulkeley and Mrs. William H. Palmer. Those of the decorative tables and flowering plants were: Mrs. Frank C. Sumner, Miss Rose Johnson and Miss Virginia Browne. Following are the prize awards:

Perennials First, James J. Goodwin, second, W. W. Hunt & Co.; third, A. N. Pierson,

Ond, W. L. A. A. Polinge Plants—First, James J. Goodwin; second, Mrs. A. A. Pope; third, A. X. Pierson, Inc.
Decorated Tables—First, Welch; second

Decorated Tables - First, Welch: second Chauvy and Miss Benson.
Cut Roses - First, A. N. Pierson, Inc.; second, Niel Nelson; third, Prot. M. W. Jacobus Bedded Plants—First, Walter L. Goodwin; second, J. A. Brodrib.

## CERTIFICATES.

W. W. Hunt & Co., first class corruncate for

W. Hunt & Co., first class certificate for boxwood plants.

John C. Willard, first-class certificate for pansies and certificate of merit for columbine Mrs. Wilhelmina Seliger, certificate of merit for seedling white rambler rose and first-class certificate for perennials.

Spear & McManus, first-class certificate for group of palms.

John Coombs, first-class certificate for groups of palms and lilies.

J. Albert Brodrib, first-class certificate for group of bedding plants.

Louis Chauvy, first-class certificate for bedding plants.

Louis Chauvy, hist-class certificate for Primula Bullevana.

H. L. Ritson, certificate of merit for perennials and roses.

J. Vidbourne & Co., first-class certificate for

J. Vidoourne & Co., hist-class vertificate for poonies.
Alfred Cebelius, certificate of merit for roses and first-class certificate for campanulas.
Park Department, first-class certificate for display of bedding plants.



New York. Perhaps you know her. If you do, you very likely already know about the Happy Solution.

For those of you who don't, here's the story. It seems that she agreed to do all the "'tending garden," provided the man of the house would keep it watered

This he agreed to do, and then promptly began looking around for a way of entirely emancipating himself from "hose holding."

He finally successfully solved the problem by spending \$11.75 for one of our Rain Machines, and freed himself from all responsibility. His wife now turns on the tancet and the garden waters itself.

Doesn't this kind of emancipation appeal to you?

Send for booklet 614 fully describing the Skinner System Rain Machine

#### SPECIAL OFFER

FOR 811.75 we will send you one of these complete Portable Lines 50

these completed long, that will water 2,500 sphare for the or any lesser amount you wish, 100 foot line 82% (Can be moved if desired and attached to regular losse.)

Simple. Durable. Nothing to get out of order. When remuttince accompanies or-der, will prepay treight east of Mississippi.



LAWN MIST WATER falls on the grass in a fine must, cover me space 18 feet wide.

are 18 feet wide.
Made in lengths
up to 18 feet.
Two lengths can
be joined by flexible coupling, to
conform to bend
in walk to spray
around a corner.

Mounted on wheels, Easy to move,

For full de-scription and prices send for Lawn Mist Cir-cular.

The Skinner Irrigation Company

YSTEM

219 Water Street Troy, Ohio



## G. D. TILLEY Naturalist

"Everything in the Bird Line from a Canary to an Ostrich"

Birds for the House and Porch Birds for the Ornamental Waterway Birds for the Garden, Pool and Aviary Birds for the Game Preserve and Park

I am the oldest established and largest exclusive dealer in land and water birds in America and have on hand the most extensive stock in the United States. G. D. TILLEY, Naturalist, Box 10, Darien, Conn.



STEEL STANDARD SETTEE Manufactured in any length

INDESTRUCTIBLE - COMFORTABLE
Write for prices, advising requirements
Steel Furniture Co-GRAND RAPIDS, MICH.

Pierson, Inc., first-class certificate for group of palms, group of roses, and for cut

Warren S, Mason, first-class certificate for

perennials.

John F. Huss, special for best general exhibit, \$2.50 in gold, offered by Walter Λ. Cook of New York.

Oscar F. Gritzmacher, first class certificate

Oscar F, Gritzmacher, first class certificate for group of perennials.

Niel Nelson, first-class certificate for roses, carnations and sweet peus.

The six best exhibits of general merit are to receive the Gardenness' Chronicle of America for one year. The following were selected for this award: W. W. Hunt, Alfred Cebelius, Gott-fried Boss, Niel Nelson, J. Albert Brodrib and Louis Chauvy.

Louis Chauvy.

AITHD DIXON, Secretary.

#### CONNECTICUT HORTICULTURAL SOCIETY.

At the meeting Friday evening was an exceedingly fine specimen of Campanula, Media layender, measuring more than three feet high and containing some 248 blooms. This plant created quite a sensation among the members by its beauty and splendid growth. This plant was grown by Alfred Cebelius, head gardener for Professor Jacobus, and received a first-class certificate. Mr. Cebelius also exhibited two varies ties of Lupinus polyphyllus, blue and rosea, and Emerus robustrum. John F Huss had a display of shrubs, among them being three varieties of duetzia, gracilis, Lemoinii and apple blossom, also dictamnus fraxinella, dictamnus alba and dictamnus rosea; viburnum tormentosum and spirea van Houttii. He was awarded a certificate of merit. Warren S. Mason, of Farming ton had the following: Anchusa Italica, Trollius Europa, Dicentia spectabilis, Hesperis matrionalis, Hemerocallis flava, hes peris, sweet rocket, armeria or thrift, Myosotis alpestris, Victoria rose, Alyssum Saxtile and others. He also received a certifi-cate of merit. Three new members were admitted to the society. The next meeting will be held in Unity Hall, Pratt street, on Wednesday evening, June 9, and all the members should make a special effort to be present in order that the Flower Show may meet with the highest success.

ALFRED DIXON, Secretary. Wethersfield, Conn., May 31, 1915.

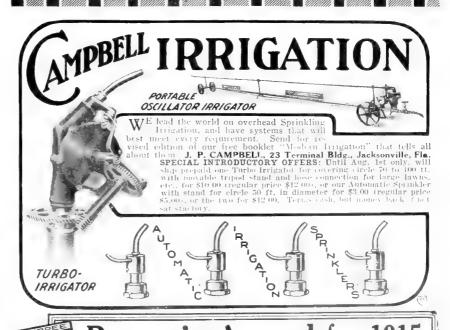
#### THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

There was a large and enthusiastic attendance at the regular monthly meeting of this society, held in their rooms in Doran's Hall, Greenwich, Conn., Friday evening, June 11, President Sealy presiding. Two new members were added to the lists and several proposals for membership were received and filed. The Summer Show Committee reported everything in readiness for the coming exhibition, to be held in the Town Hall, Greenwich, Conn., Friday and Saturday, June 18 and 19. Fifty-five classes are provided for. We anticipate a very fine exhibition of flowers, fruits and veg-We anticipate a very etables. The Outing Committee announced the date of the outing this year at Rye Beach Inn, August 11. The success of previous years will no doubt be repeated this year. The Fall Show Committee reported progress, and has ready for distribution a preliminary schedule. One hundred and eleven classes are included. Handsome prizes of cash, silver cups, medals, cut glass and useful silverware articles will be offered. Visitors were Mr. Joseph Manda, of South

Orange, N. J., and Mr. Watkins, of the Burnett Bros, seed house, New York City, who each addressed the meeting.

A special feature of this meeting was the grand display of cut flowers, plants and vegetables, staged by the following members, with the awards of the judges: Collection





Burpee's Annual tells the Plain Truth about Burpee-Quality Seeds. It is mailed free, Write for it today, - "Lest you forget." A postcard will do. W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia.

A tested Fungicide of practical value for Grapes, Roses, Cucumbers, Melons, Tomatoes and Pear Trees



If you have never used Slug Shot go to your nearest seed store and say: "Give me a barrel, a keg, 25 lbs., 10 lbs., 5 lbs., or a 1 lb. carton," as the case may be, of Slug Shot. After you have tried Slug Shot you will find nothing else to be its superior because you know from experience that Slug Shot is reliable in everything that goes to make a useful Insecticide for garden use.

"Sold by Seed Dealers of America" Send for pamphlet to

Hammond's | Slug Shot Works
Beacon, N. Y.

of Flowering Shrubs and Perennials from Dehn & Bertolf. Honorable mention, a handsome specimen plant of Calceolaria Stewartii, from James Stuart, was awarded cultural certificate. Vase of assorted Sweet Peas, from Thomas Ryan; vote of thanks. Collection of Sweet Peas in 12 varieties, from Robert Grusmert, was very highly commended. A magnificent vase of White Killarney Roses, from William Whittier, was awarded a cultural certificate. A

RIDER AGENTS WANTED

"Ranger" bicycle furnished by us. Our Rider Agents everywhere are making money fast. Write for full particulars and special offer at once.

No Money RequireD until you receive and approve your bicycle. We ship to anyone anywhere in the U. S. without a cent deposit in advance, prepay freight, and allow TEN DAYS'FREE TRIAL during which time you may ride the bicycle and put it to any test you wish. If you are then not perfectly satisfied or do not wish to keep the bicycle ship it back to us at our expense and you will not be out one cent.

FACTORY PRICES We furnish the highest grade bicycles it is actual factory cost. You save \$10 to \$25 middlemen's profits by buying direct of us and have the manufacturer's guarantee behind your bicycle. Do NOT BUY a bicycle or a pair of tires from anyone at any price until you receive our catalogues and learn our unheard of factory prices and remarkable special offers.

YOU WILL BE ASTONISHED when you receive our beautiful catatheworderfully low prices we can make you this year. We sell the highest grade bicycles for less money than any other factory. We are satisfied with \$1.00 profit above factory cost. BICYCLE DEALERS, you can sell our bleycles under your own name plate at double our prices. Orders filled the day received.

SECOND HAND BICYCLES. We do not regularly handle second-hand bleycles, but usually have a number on hand taken in trade by our Chicago retail stores. These we clear out promptly at prices ranging from \$3 to \$6 or \$10. Descriptive bargain lists mailed free. COASTER BRAKES, single wheels, imported roller chains and pedals, parts, repairs COASTER BRAKES, and equipment of all kinds at half the regular retail prices.

00 Hedgethorn Puncture-Proof \$ Self-healing Tires A SAMPLE PAIR

sell you a sample pair for \$1.50 (cash

NO MORE TROUBLE FROM PUNCTURES

Nails, Tacks or Glass will not let the air out.
A hundred thousand pairs sold last year.

DESCRIPTION: Is lively and easy riding, very durable and lined inside with

riding, very durable and lined inside with a special quality of rubber, which never becomes porous and which closes up small punctures without allowing air to escape. They weigh no more than an ordinary tire, the puncture resisting qualities being given by several layers of thin, specially grant given by several layers of thin, specially prepared fabric on the tread. The regular price of these tires is \$10.00 per pair, but for advertising purposes we are making a special factory price to the rider of only \$4.80 per pair. All orders shipped same day letter is received. We will ship C. O. D. on approval. You do not need to pay a cent until you examine and find them strictly as represented.

We will allow a cash discount of 5 per cent (thereby making the price \$4.55 per pair) if you send FULL CASH WITH ORDER and enclose this advertisement. You run no risk in sending us an order as the tires may be returned at OUR expense if for any reason they are not satisfactory on examination. We are perfectly reliable and money sent to us as safe as in a bank. If you order a pair of these tires, you will find that they will ride easier, run faster, wear better, last longer and look finer than any fire you have ever used or seen at any price. We know that you will so swell pleased that when you want a bleyele you will give us your order. We want you to send us a trial order at once, hence this remarkable tire offer.

FYOUNEED TIRES Out by the result of the second and trial at the special introductory price quoted above; or write for our big Tire and Sundry Catalogue which describes and quotes all makes and trials of tires and bicycle equipment and sundries at about half the usual prices.

DO NOT WAIT but write us as postal today. Do NOT THINK OF BUYING a bleyele or a pair tecosts only a postal to learn everything. Write it NOW.

J.L. MEAD CYCLE COMPANY, CHICAGO, ILL.

from James Triane, was very highly conmended. A grand vase of Palmies from James Foster, was accorded honorable mention. A fine vase of Dahlias, from William Morrow, received a vote of thanks. Vase of Paeonies and display of spinnach from Joseph Tiernan received a vote of thanks. P. W. Popp received a cultural cer tificate for Calceolaria Bailoni. These new Calceolarias are a great acquisition, very lasting and graceful, and are not affected so quickly in hot weather as are the hybridia type. The three varieties are Stewartii. Medifordii, Bailonii.

The fall show will be held in the Armory. Stamford, Conn., November 2-3. The next meeting will be held July 9,

P. W. POPP, Cor. Seey.



Big opportunity for agents to make a good salary representing us. Write us about

food, a little water, and a little loving care, insure a beautiful lawn and flowers. Top dress your lawn with Radium Plant Food, dig it in around your flowers and

shrubbery—they will respond ...
Plants are living growing. things and need food while growing.



Contains nitrogen, phosphoric acid, potash and radium. One pound will fertilize 50 sq. ft., or a plot 10x5 ft. Sold by dealers, or prepaid East of Mississippi River (West, add 5c. lb.) as follows:

Our fam my booklet, "Radium Makes Things Grow," free for the asking.

RADIUM FERTILIZER CO. 208 Vanadium Bldg. PITTSBURGH, PA.



## "HAMMOND'S GRAPE DUST"

Used effectively to kill Powdery Mildew on Roses and other Plants.

USED BY THE FLORISTS FOR OVER 25 SUCCESSIVE YEARS

Sold by the Seed Dealers. For pamphlet on Bugs and Blights address

HAMMOND'S PAINT & SLUG SHOT WORKS

BEACON, N. Y.

ուն աննա 4, ան հետնան եր ու 1, եզաներ

#### BEAUTIFUL WATER LILIES

211 dalla lilla matinalit la kanta holisila.

Tricker's Water Lilies were awarded a gold modal at the International Show, New York, March 17th last. Write for booklet containing fall description and dare to us for garden culture, as well as for ponds, fountains, basis, etc.

WM. TRICKER, Box W, Arlington, N. J.

**Барини по именяти при полити при на при на при при на пр** 

## IMPORTED ORCHIDS

If you contemplate buying imported stock this year write to me.

JOSEPH MANDA, Orchid Expert, Seedsman and Florist WEST ORANGE, N. J.

## Chrysanthemums - Carnations—Roses

CONTRACTOR OF DATA AND RECOGNISHED BY A CORRESPONDENCE OF THE CONTRACT OF THE PARTY 
NOVELTIES FOR 1915

If you did not receive our 1915 price list write us

Elmsford Nurseries—Scott Bros., Elmsford, N. Y.

in agricultura of the state of

## ORCHIDS

We are Specialists in Orchids, we collect, grow, unport, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N J.

## HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

## D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

Rose Growers With a Background of Fifty Years' Experience

The Conard & Jones Co. West Grove, Pa.

#### THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES NURSERIES.

There you will find all kinds and you can take your pick from the best that is grown. Maximum Quality at Minimum Prees. Write W. R. Clucas, Manager

THE PALISADES NURSERIES, INC., SPARKILL, N. Y.

#### Manufacturer of GREENHOUSE SHADING E. A. LIPPMAN 6 HIGH STREET, MORRISTOWN, N. J.

LOGINAL TO THE CONTROL OF THE CONTRO

Santa carantonal e a alcade de

In dry form, \$1.00 a package, delivered at any address. Will make one gallon, sufficient for 800 square feet.

## HARRY BALDWIN

gor , as many a community , , , and mornous or , , to anomalism , , and mornous and , and ,

Manufacturer of

GREEN-HOUSE SHADING LATH ROLLER BLINDS

MAMARONECK, N. Y. **Баниновыкания пина выкличиния выкличиния вы выправления вы выстрои * 

## Tree Owners and Tree Lovers

Will find much to interest and instruct

# NEW ILLUSTRATED MAGAZINE

Devoted to Arboriculture and Forestry.

All about the planting, care and treatment of trees and shrubs Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage. Published quarterly by

## THE FROST & BARTLETT COMPANY

26 Cortlandt St.

(Suite 212)

**NEW YORK** 



By an Unusual Arrangement with the Publishers We Offer to Our Readers on Special Easy Terms

# BAILEY'S New Standard Cyclopedia of Horticulture

Everything Newly Written-Up to Date-Beautifully Illustrated

\*HE new Standard Cyclopedia of Horticulture has been freshly written in the light of the most recent research and experience. It is not merely an ordinary revision or cor-rected edition of the old Cyclopedia, but it is a new work from start to finish with enlarged boundaries geographically and practically; it supersedes and displaces all previous editions or reprints of every kind whatsoever.

It is the fullest, the newest, the most authoritative of all works of its kind and constitutes the most conscientious attempt that has ever been made to compress the whole story of our horticultural thought, learning and achieve-ment into one set of books

Write for 16 Page Prospectus Containing Complete Description and our offer to Subscription Department.

## THE CHRONICLE PRESS, Inc.

Publishers of Gardeners' Chronicle of America 286 Fifth Ave., New York

Why Metropolitan Construction Was Used by the N. J. Agricultural Experiment Station, at New Brunswick, N. J.



HERE IS THE STORY: Every grower knows to what test the Government and State experiment stations put their greenhouses. The construction and heating system must be far above the ordinary in order to produce the desired results. The greenhouse on the extreme left was not built by us, but when a new one was wanted we were awarded the contract. This greenhouse (the one in the center) was constructed of the Metropolitan patented iron wall construction. Two years later they needed a third house, and would have none but our construction—that's the one to the right.

Here is what Dr. J. G. Lipman, Director of the New Jersey Agricultural Experiment Station, has to say about our work: "In so far as I know, the work done by you was eminently satisfactory, and I trust that we shall have occasion in the future to request your company to bid on other work."

If contemplating the building of a greenhouse, by we say mut plans and prices. We go anywhere in the U. S. J. HERE IS THE STORY: Every grower knows to what test the

METROPOLITAN MATERIAL COMPANY Brooklyn, New York 1396-1412 Metropolitan Ave.

2000 MARIO DE LA TRANSPORTACIONA DE LA TRANSPORTACIONA DE LA CONTRACTOR DE LA TRANSPORTACIONA DEL LA TRANSPORTACIONA DE LA TRANSPORTACIONA DE LA TRANSPORTACIONA DE LA TRANSPORTACIONA DEL LA TRAN

TELEPHONE CONNECTION

## WILLIAM F. LEARY

SCIENTIFIC CARE OF TREES SPRAYING, PRUNING, CEMENTING

SPRAYING INSURES THE LIVES OF YOUR TREES

Contracts taken in any part of the United States TREES MOVED

Agent for APHINE-FUNGINE-VERMINE-SCALINE

212 MAIN STREET, Y. M. C. A. NEW ROCHELLE, N. Y.

## **FERTILIZE** WHILE WATERING BY THE

KIRKE SYSTEM

A neat device easily attached to any garden hose.

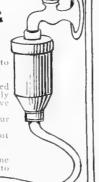
A very efficient simple clean cdorless and inexpensive way to fertilize and feed the grass or garden with high grade, immediately available, concentrated plant food. A preventive of all kinds of plant and free mosts. Absolute assurance against "burnt spots" in your lawn

The control of the co

Lawn Xow in use by the Xow York Park Department and most leading florists and nurserymen.

Agents conted for load Xow In Joint fooding. Ask your hardware dealer or seedman to get one for you, or send for interesting booklet and price to

The NEW ENGLAND CO., Suite 1407 80 Fifth Ave., New York City



# **Bon Arbor Chemical Co.**

grander i announce demonstrative communicación de construcción de la constante de c

PATERSON, N. J.

## Manufacturers of

BON ARBOR No. 1. Soluble Plant Life. A most wonderful and invigorating food for all plants, indoor and outdoor.

BON ARBOR No. 2. Best dressing for your

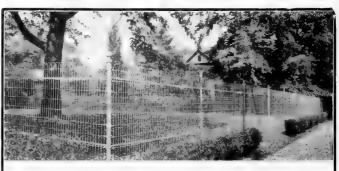
RADIX WORM ERADICATOR. Instantly removes worms from your Tennis Courts, Putting greens, etc.

ANT DESTROYER. Will remove all ants outside or indoors in a week's time. Be sure and try it.

NATURAL HUMUS. Is the best for making new lawns, gardens, etc.

> Write for descripive catalogue and prices

> > 129 ( ) 1 11 40 00 00 00 1 1 10 10 150

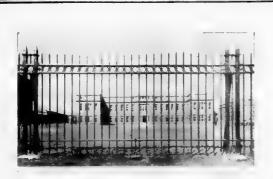


Nothing adds more to the beauty and attractiveness of your grounds than a good, substantial fence. Permanency is of prime importance, too. Select the fence that defies rust and withstands all weather conditions.



fences are made of big, strong wires with clamped joints which prevent slipping, sagging or twisting. This exclusive feature assures unusual rigidity under the most severe strain. Excelsior Fences are dipped in molten zinc which makes them practically indestructible. Write for Catalog J from which to select the style best suited to your needs. Ask your hardware dealer for Excelsior "Rust Proof Trellises, Flower and Tree Guards.

WRIGHT WIRE COMPANY, Worcester, Mass.





Iron Fence Around the Grounds of the City Hospital

## What Happened at Cincinnati

NE of the things was, we secured the contract for that much talked about beautiful iron fence around the City Hospital

We now have some strikingly interesting photos of it. If you are considering an iron fence for your grounds we will gladly send you a collection of photos of this fence.

It's quite one of the best things we have done yet. Not so big as the Yellowstone Park order -as far as number of feet is concerned-but a fine piece of work in every way.

WANT TO SEE THE PHOTOS?

2430 YANDES ST.

## NTERPRISE IRON WORKS

INDIANAPOLIS, INDIANA



HEN it comes to Green-Houses, come to

Hitchings of Compan



## Trap Sparrows

## Dodson Sparrow Trap New and Improved No Other Trap Like This

Works automatically. Double funnel trap on left; drop trap on ght | Catches spearers s all the time | Lasts a lifetime | Price 86,

fob Canage.

A New Dodson Invention A Guard to keep cats, squiriels and other armals away from birds in trees. Made of wire; expands with growth of tree. Easily attached; em't barm trees. Price, 35 cents per limit host, to be Cheago.

Free Booklet. Tells how to attract native birds. Describes the Lamous Dodson, Bird Houses. 20 steles. If you want song birds get genuice Dodson Bird Houses. On any subject connected with American birds write to The Man The Birds Love.

JOSEPH H. DODSON, 732 Security Bldg., Chicago, Ill.

Peafowl and Pheasants

Also Pheasant Eggs for Hatching

Stock guaranteed to be sound and non-related

JOHN W. TALBOT, South Bend





# HNAVEND Lawn and Park Fence

## FOR PUBLIC PARKS—COUNTRY CLUBS—PRIVATE GROUNDS

Harmonizes with the natural beauty of public parks or private grounds and affords substantial, lasting protection.

No matter how handsome your home, in city, town or country, Cyclond-Waukegan Fence will give it an added air of beauty and prosperity not possible with wooden lence.

## CYCLONE WAUKEGAN

is built in various artistic designs, of heavily galvanized wire, closely and firmly spaced. It is easy to erect on wood or iron posts and adjusts itself gracefully to uneven ground.

We build park fence of various heights and designs to suit your special needs.

We manufacture also Flower Bed and Lawn Borders, Trellises, Tennis Court Back Stops, Tree Guards, etc.

Handsomely Illustrated Catalog giving designs and prices, sent free on request.

CYCLONE FENCE COMPANY WAUKEGAN, ILL.

fence problems with-

Science is teaching that it is as essential to

from insect pests and the various fungi with which it is afflicted as it is to properly fertilize it.



Our Engineering De-

partment will co-oper-

ate with superintend-

ents of Parks and Pri-

vate Grounds, and

Landscape Gardeners.

We will be glad to as-

sist in solving your

out charge.

concentrated liquid

a concontrated liquid spinying material, readily soluble in water, is used at various strengths, me ording to directions on cans.

Aphine is equally effective in the house and garden; free from disagreeable odors of most insecticides, and practical for professional and amateur growers.

It is effective against green, black and white ross cabbage and curcking insects. It can be

thy, red spider, thrips, mealy bug, soft scale rose cabbage and white rant slugs, and other soft bodied and sap-sucking insects. It can be applied to the tenderest foliage, flowers, fruits and vegetables.

Aphine will keep your plants (sweet pea vines, rose bushes, etc., etc.) in the garden free from insects.

Gill, 25c.; half pint, 40c.; pint, 65c.; quart, \$1.00; gallon, \$2.50.

As a summer spray for hardy trees, shrubs and plants it is an effective remedy against green, black and white fly, red spider, thrips, woolly aphis, cottony maple scale, tulip scale, mealy bug, and all soft scale. Use one part Scaline to forty to fifty parts water.

Scaline will tid your evergreens and shrubs of the red spider pest, which has done so much havon to them recently.

For summer spraying, Scaline is recognized as a marked improvement over the old-fashioned kerosene emulsion; more effective and more economical. It mives readily with water, contains no sediment, and can be applied with the finest spray nozzle.

Quart, 75c.; gallon, \$1.50; 10 gallons, \$10.00.

is a concentrated sulphur composition, used as a spraying material, readily soluble in water, containing no sediment, and, unlike Bordeaux mixture, and lime and sulphur, does not stain the foliage, but cleanses it.

It is an infallible remedy for mildew, rust and wilt, affecting flowers, fruits and vegetables, and is used with much success by leading growers on young stock as a preventive against various blights. One gallon makes 50 gallons spraying material.

Half pint, 30c.; pint, 50c.; quart, 75c.; gallon, \$2.00.

is a soil sterilizer and vermicide. Destroys cut, wire, eel and grab worms, maggets, root lice and ants. Used one part to four hundred parts water, thoroughly soaking the ground, it will protect your plants and lawns against ravages under the soil.

Gill, 25c.; half pint, 40c.; pints, 65c.; quart, \$1.00; gallon, \$3.00.

These products have the endersement of leading a numerical and pricate grovers, and are generally recognized as standard remedies for the control of the insects and plant diseases for which they are recommended.

For sale by the leading seedsmen throughout the country. If not obtainable in your community, send us your order direct and we will have it shipped to you from our nearest agency.

Santa-amanumban-amanunga tan ing seriyan aa aree ay a seriyan aa ay a seriya

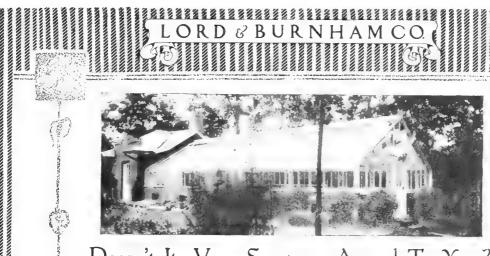
Aphine Manufacturing Co.

MANUFACTURERS OF AGRICULTURAL CHEMICALS Madison, N. J.



## INTERNATIONAL SILVER COMPANY

Succeeding The MERIDEN Co. Established 1852 49-51 West 34th St., through to 68-70 West 35th St., New York



## Doesn't Its Very Snugness Appeal To You?

ANT you just (icture to yourself how attractive such a greenhouse would look on your grounds? Can't you think of the many flowers you would assure in a early ench spring so they would be almost ready to bloom when set outside? Can't you think of the innacious favorites you would next fall save thom Jack Frost's dependation? Can't you just see yourself going down to your garden under glass, when the snow is case and crunchy, it's so cold; and packing your arms full of flowers and maybap even cane back with a malon or

twe? What a attend ton it will also be not a to always have flowers, and never want for the rent plants for contact. When you own a grouth essential, it is wen will discover that there really are some things, the realization which is greater than their antiquation. We will shally give you agree on this loose of contact the essential plants of the property of Market conditions make to a goot relabily layorable time to fould. Send for Two Given Libert Glass to these, A Pop Into Their Bergers.

NEW YORK—42nd St. Bldg. CHICAGO—Rookery Bldg. TORONTO-Royal Bank Building.

our stock.

PHILADELPHIA—Franklin Bink Bldg. CLEVELAND—Swetland Bldg. BOSTON-Tremont Bldg.
ROCHESTER-Granite Bldg. FACTORIES-Irvington, N. Y.; Des Plaines, Ill.; St. Catharines, Canada.

# (C(0) 1, U) (1) (A)

The latest dance hits while they are hits—the latest in every class of vocal and instrumental music—are on Columbia double-disc records. A new list on sale the 20th of every month. And at a standard price of 65 cents—the price of more than a thousand Columbia double-disc records.

Buy Columbia records because they are better records—universal in selections and faultless in recording.

Hear the newest records at your Columbia dealer's. Today! And hear any other particular records you like, you have a choice of more than 4000.

the model that for more than four years has been sold to more people than any other in strument—regardless of price of make. It has every Common force feature, including the exclusively common tone control icaves. Other Columbia Grafonolas from \$17.50 to \$500—





## Columbia Graphophone Co.

Box F113 Woolworth Box . L'ew York





# GARDENT RS CHRONGLE

HORTICUTURAL DIGEST



PARKS & Control



# Some Conservatory Sense

your particular needs, but that harmonized attractively with the lines of your residence.
That is exactly our idea of conservatory

building. We can show you dozens of photographs of subjects we have built both in Canada and the States; but at best, they

If you will, however, send us photos of your residence and give us points of the

for you. Or it may be possible for one of us to come and talk it over with you.

Which is a particularly favorable time to build.

Our new Canada factory is now in opera-

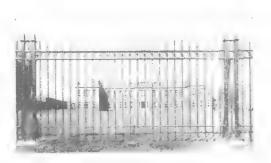
New York, 42d St. Bldg. Chicago, Rookery Bldg. Philadelphia Cleveland,
Franklin Bank Bldg. Swetland Bldg.
Teronto—Royal Bank Bldg.

Boston, 11. mont Bldg. Rochester. Granite Bldg.



#### FACTORIES:

Irvington, N. Y Des Plaines Ill. St. Catharines, Canada





# We Want You to See Photos of This Fence

AST month we offered to send photos of this much talked of ornamental iron fence around the City Hospital grounds at Cincinnati. That offer stirred up so much interest that we made up our minds it was good business to give those who might have missed that last ad. a chance of seeing this.

If you are a park or cemetery superintendent, you are welcome to a set of the photos. We will also mail you our catalogue.

2430 YANDES ST.

ENTERPRISE IRON WORKS

INDIANAPOLIS, IND.

LUL LA CONTROLL, MURRIMONTO



2007) - Geode de Companie de C

## All Varieties **Thoroughly Tested**

T is the policy of Jas. Carter & Co. to thoroughly test every strain of flower or vegetable. Not until satisfactory results are shown by actual growing are they listed in the Carter Catalog.

That is why Carters Tested Seeds are so reliable and true to description.

If you have not examined the 1915 Carter Catalog-American Edition-write at once for your copy.



CARTERS TESTED SEEDS, INC. 111 Chamber of Commerce Bldg., Boston, Mass

Branch at Seattle, Wash. In Canada-133 King St. E., Toronto. Branch of Jas. Carter & Co., Raynes
Park, England. We Design and Furnish

# Plans for the Finest Landscape Work

If you are contemplating any extensive park or estate planting communicate with us on your requirements.

Our Nursery is located at Scarborough, N. Y., near the railroad station, comprising over fifty acres, and contains one of the choicest and rarest collections of shrubs and trees in the country. We have been awarded for the last three years, by the Horticultural Society of New York,

FIRST PRIZE FOR THE FINEST AND LARG-EST COLLECTION OF HARDY SHRUBS AND TREES.

We will take pleasure in sending our catalogue on request.

## F. R. PIERSON COMPANY

Main Office and Post Office, Tarrytown, N. Y. Telephone, Tarrytown 48

## **BOBBINK & ATKINS**

"World's Choicest Nursery and Greenhouse Products"

## for Early Autumn Planting

We cordially invite you to visit our Nurseries and see these surprising collections and our modern facilities for their successful culture. We wish especially to emphasize the fact that we are growers and having extensive land and experience are able to discriminate with care and confidence the finest in every line of Horticulture.

## Evergreens

In an unrivalled selection, rare and complete

Hardy Old-Fashioned Flowers A wonderful assortment including Paconias and Iris

> Spring Flowering Bulbs Only the best in quality and variety

## Our New Hybrid Giant-Flowering Marshmallow

The wonder of the age in striking color. Flowering now

You can obtain by request Our ILLUSTRATED GENERAL CATALOG NO. 45, the most complete and up-to-date book of its kind, also our AUTUMN BULB CATALOG.

We Plan and Plant Grounds and Gardens Everywhere HURSERYMEN, FLORISTS AND PLANTERS

Rutherford, New Jersey

## Evergreen Trees

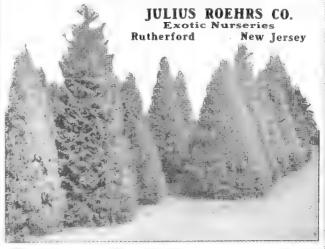
There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

## Trees, Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs.

Greenhouse Plants and Orchids.



alt i fram 1 felt i dhishinian i fab 🗦

# Burnett's Reliable Bulbs For Early Forcing

## ORDER NOW

Freesia Purity (Fischer's Strain), Jumbo Size Bulbs
Hyacinths, White Roman
Narcissus, Paper White Grandiflora
Narcissus, Trumpet Major (French)
Narcissus, Golden Spur (French Grown)
Lilium Harrisii
Lilium Candidum
Lilium Formosum

POT GROWN STRAWBERRY PLANTS

Write for Illustrated Catalogue, mailed free

## BURNETT BROTHERS

**SEEDSMEN** 

08 Chambers St., New York

THE RESIDENCE OF THE PROPERTY 
SCHEEPERS' High Grade Bulbs are BETTER, have more vitality, are always TRUE TO NAME.

t Landanianian 6.1 m ( merupakanan 19 , 1 merupakan 19 Landa 17 - merupakan 19 1 merupakan 19 merupakan 19 19

SCHEEPERS' Darwin Tulips were awarded four of the five FIRST PRIZES at the recent Nassau Horticultural Society Darwin Tulip Show.

We are successful because we have THE GOODS and we count the Highest Class Cardeners among our satisfied customers.

JOHN SCHEEPERS & CO., INC. 2 Stone Street, New York

## SUMMER TRAVEL

Tours and Tickets by all routes, rail or steamer, with or without hotels. Five to Fifteen Day Tours to resorts of New York State, St. Lawrence, Canadian Maritime Provinces, etc. Tours to California Expositions.

WRITE FOR PROGRAM DESIRED

## THOS. COOK & SON

TOURISTS' AGENTS

245 Broadway

New York

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

# KENNEDY & HUNTER SEEDSMEN

SEND FOR BULB CATALOGUE

156 West 34th Street One block from New York

"ONLY THE BEST"

**Д**елинов поость пениновоговляновничниновлють поливынинию проположиваны писквенинины поливы повышаю

\$ammer are cap onominament of the state and one of the state of the s

## COMPETENT GARDENERS

¶ The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

יים באות מתמונות התונים המתונות התונים המתונים באות המתונים באות המתונים המתונים המתונים המתונים המתונים המתונים המתונים המתונים באותר ב

35 and 37 Cortlandt St.

**NEW YORK CITY** 

New Type

# Waterman's Ideal Fountain Pen

## "Pocket Self-Filler"

Simply Raise and Lower the Lever and It Fills; also Self-Cleaning; Very Speedy.

A Worthy Self-Filling Companion to the Regular and Safety Types of Waterman's Ideals.

\$2.50 up

Ask Your Dealer to Show You This New Type

L. E. Waterman Company 173 Broadway, New York



# Pot-Grown Strawberries

CONTRACTOR A CONTRACT OF D. DOUBLINGS C. CONTRACTOR

Ready for delivery. Write for Catalogue.

# Cold Storage Bulbs

We have in Cold Storage the following Bulbs for summer planting

## LILIUM FORMOSUM

Bulbs 9 to 10 and 10 to 12 inches.

#### LILIUM GIGANTEUM Bulbs 9 to 10 inches.

## LILIUM SPECIOSUM MAGNIFICUM

Bulbs 9 to 11 inches.

## LILY OF THE VALLEY

Dresden and Berlin Pips.

Write for Catalogue and Prices.

## W. E. MARSHALL & CO.

Seedsmen

166 West 23rd Street



## Visit the Meehan Nurseries

now-vou will receive suggestions of value on improving any property under your care.

Any day, except Sunday, we shall be glad to see you.

#### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65

Germantown, Phila.

# Cold Storage Bulbs

		Doz.	100
Lilium Spec. Rubrum,	9/11	\$3.00	\$20.00
	11/13	4.00	30.00
Lilium Melpomene,	9/11	3.00	20.00
Magnificum,	11/13	4.00	30.00
Lilium Spec. Album,	9/11	4.00	30.00
Lilium Long. Giganteum,	8/9	2.00	15.00
•	9/11	3.50	25.00

Lily of the Valley-Wedding Bells. Per 100, \$3; per 1,000, \$25.

We recommend shipments at frequent intervals to keep up a continuous supply of blooms.

## **POT GROWN**

# Strawberry Plants

For Outdoor Planting and Winter Forcing.

Send for Mid-Summer Catalog Now Ready

Arthur T. Boddington Company, Inc. SEEDSMEN

342 West 14th Street, New York

## SEEDS OF PERENNIALS in Mid-Summer



19 Alphabetical pages covering all in detail, size, bloom, hardiness, etc., in our general catalog

Get another copy if mislaid

Try These (A) 12 pkts. seed, 12 best perennials (our selection) \$1.00 (B) 25 pkts. seed, 25 best perennials (our selection) \$2.00

The above are regular size factets, sold at ICe, ea !

## PANSY Vaughan's International Mixture

This is and always has been, literally, A WORLD'S BEST MIXTURE. It is one of the specialties that has established the reputation of VAUGHAN'S SEEDS.

## VAUGHAN'S SEED STORE

43 Barclay St., New York

31-33 W. Randolph St., Chicago



## DREER'S POT-GROWN TRAWBERRY PLAI

The best varieties, both new and old, and best methods of planting to raise a full crop of strawberries next year are fully particularized in

## Dreer's Midsummer Catalogue

Also Celery, Cabbage, and other vegetable plants. A select list of decorative plants, Palms, Ferns, etc.; Seeds of old-fashioned Hardy Perennials and other flowers for summer sowing. Seasonable Farm

Write today for a copy, FREE, and please mention this magazine

HENRY A. DREER

## The Contents---July, 1915

	Page		Page
Rock Gardens and Rockeries Arthur Smith	307	Gardeners Inspect "Homewood"	326
The Question of the Gardener		American Association of Park Superintendents'	
Mrs. Francis King	311	Notes	327
Question of Proper Propagation			328
		Pittsburgh Horticultural Notes	329
Garden Ants Do Little Harm	312	Brooklyn Society Field Meeting	329
An Eighty Acre Estate in New York City—	313	Flower Show, Panama-Pacific Exposition .	329
The Onlooker	) )	The South Path from the Pacific Coast	330 332
	316	National Associations	332
Schizanthus Culture Stanley R. Chandler	317	Local Societies	333
Work for the Month of August	217	Garden Clubs	333
Henry Gibson	318	New Canaan, Conn., Show	334
Pheasants as Insectivorous Birds W. H. Olin	319		334
Encharias Amazoniea	320	Newport, R. I., Show	334
The Value of Cultivating		Massachusetts Horticultural Society Shows .	335
Flower Shows as Business Promoters		Oyster Bay Horticultural Society Meeting .	335
Concrete for the Country Home			335
Domesticating the Mallard Duck		Paterson Florticultural Society Meeting	336
L. P. Jensen	323	Madison, N. J., Rose Show	336
Editorials	324	Tarrytown, N. Y., Show	337
The Fatherland . James Russell Lowell	324	Greenwich, Conn., Show	337
National Association of Gardeners' Notes .	325	Glen Cove, N. Y., Show	
Among the Gardeners			337
The Last Call	325	Ridgewood, N. J., Show	338

# STUMPP & WALTER CO'S MID-SUMMER CATALOG

Complete list of Best Varieties of Strawberry Plants Celery, Cauliflower and Cabbage Also complete list of Perennial Flower Seeds Selected Strains of Pansies Best Grades of Rubber Hose, Lawn Sprinklers and Requisites Insecticides, Sprayers and other seasonable needs

> If we do not have the pleasure of having your name on our list, please write, asking for catalog.

NEW YORK CITY

# GARDENERS' CHRONICLE

## OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

JULY, 1915

No. 7.

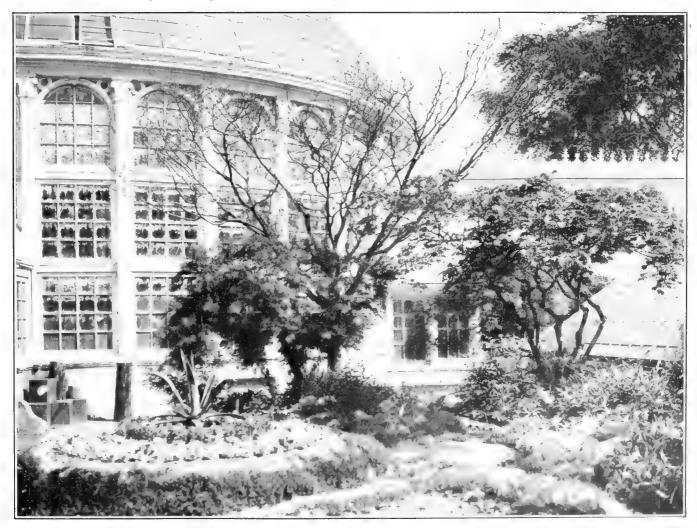
# Rock Gardens and Rockeries

By Arthur Smith, Pennsylvania.

Slowly perhaps, but none the less surely, gardening with hardy plants is becoming the rule, to the exclusion of the unnatural, and therefore inartistic, beddingout system. That the latter has existed so long is due in a great measure to the fact that professional gardeners with expert knowledge of hardy plants are in the minority, and also because so many landscape architects, so called, rarely make provision for hardy

plants, other than shrubs, in their plans, as their knowledge of them is generally even less than that of the average gardener.

When people begin to see the artistic results produced by gardening with hardy plants, the effects of the ever-changing variety for the greater part of the year and the boundless possibilities connected with the system, they desire to bring into their gardens some



PORTION OF ROCK GARDEN, ADJOINING THE CONSERVATORY, U. S. BOTANIC GARDEN, WASHINGTON, D. C. GEORGE W. HESS, SUPERINTENDENT. THE ACACLA HUNDRISSUNA (HARDY ACACLA STEN IN THE BACKGROUND WAS PLANTED BY GENERAL U. S. GRANT.

of the many beautiful plants which find a congenial home among rocks. Hence a rockery is made with the idea of accommodating them.

We have used the caption "Rock Gardens and Rockeries"; the former may be of any extent, a distinct garden—in the same way that one would form a rose garden, for instance—in which one can create all kinds of situations suited to the needs of rock plants which distinctly differ in different species, whether from arid Arizona or from the mountains above the tree line close to perpetual snow. A rockery may cover only a few square yards devoted to a small collection of those choice gems of the floral world known as Alpines.

Whatever the extent of "rockwork" we propose to undertake, the underlying principles of construction ful subjects which are to be found upon the mountains we must give them a home which reproduces to the greatest possible extent that from which they are removed, and at the same time protect them from the adverse effects which may arise from the great difference in climate.

The mistake is often made of thinking that these plants grow upon rocks: it is true that a mere passing glance might lead one to suppose such to be the case, but if closely examined it will be found that their roots go down into the fissures of the rocks and in cases where these fissures have been opened up the roots have been found to be many feet in length and are thus safe from cold and drought.

This apparent prevailing idea that rock plants grow



ROCK GARDEN ON THE ESTATE OF THE LATE J. J. GOODWIN, HARTFORD, CONN. J. J. HUSS, SUPERINTENDENT. SHOWING AN ARTISTIC ARRANGEMENT OF ALPINE PLANTS. THE HARMONY OF COLOR IS INDESCRIBABLE.

are the same. There are few matters connected with horticulture wherein there have been more failures and ridiculous results than in the formation of rockeries.

The use of rocks in connection with growing plants is to create conditions similar to their native habitat and also to counteract the adverse circumstances brought about by a distinct change in that habitat. One of the principles of naturalizing is to produce as far as possible the environment in which the plant has been in the habit of living. The fact that a plant has been growing under certain conditions for a thousand or more years and is found in no other, is *prima facic* evidence that those conditions are best for its constitution. Therefore, if we wish to grow the many beauti-

upon rocks and therefore they require little or no soil, no doubt accounts for the method frequently employed in making rockeries, which is to dump a few loads of rocks on the top of hard ground, form them into a sort of pyramid, poke a few spoonfuls of soil between each, and ram in the plant with a stick. There are, it is true, a few species, such as Sedum acre, Sempervirum tectorum, that will survive this treatment, but one does not go to the trouble and expense of constructing a rockery for the purpose of growing subjects like these which will thrive in any poor, droughty situation.

The first point to be considered in making a rockery is the site. This should not be near trees or shrubs with extensive root action on account of their

roots being sure to find their way into the soil of the rockery and rob the plants of food and water. The drip from trees is also detrimental to the alpine section of rock plants. It should be in an open situation, not near the walls of a building and not join or be part of a closely-cut lawn or other formal environment. If possible it should be so placed that it is not seen until actually reached; in other words, it is better not to make it part of the landscape. The more airy the spot chosen the better, especially for alpines, and its surroundings should be as naturally picturesque as possible. In its immediate neighborhood dwarf subjects having compact roots may be used, such as the prostrate Junipers, dwarf species of native Rhododendrons, Andromedas, Heather and such like, with things of a taller nature farther away. Of

trouble and expense, but in all cases the site must be thoroughly cleared of everything likely to grow through and cause trouble in the future.

It is not necessary that a rock garden should be made into mounds and miniature mountains. A slight elevation above the immediate surroundings is not out of place; in fact, desirable, but a pile of earth and rocks, with a flat surface extending all round is unnatural and therefore inartistic.

If the ground of the site decided upon contains much clay it should be entirely removed and the drainage secured by tiles. Above the latter should be placed a few inches of stones, arranging so that the top of the stones is 3 feet below the surface of the soil in which the plants are to be placed.

The soil in which the plants are to grow should be



THE CAMERA DOES NOT DO FULL JUSTICE TO THIS SCENE. IT CANNOT REVEAL THE TRUE SPITNDOR OF THE TOTAGE AND BLOOM. ANOTHER VIEW OF THE ROCK GARDEN ON THE LATE, J. J. GOODWAY ESTATE.

course one has to make the best of the conditions they have, but jarring notes must be avoided, and simplicity and naturalness, which are too often lost sight of in general landscape work, made the guiding principles.

The drainage of the site must be absolutely perfect, as stagnant moisture is fatal; even when rock plants are found in nature growing among rocks in moist situations or where there is apparent constant drip from rocks above them, it will be found that there is complete drainage and that the drip is only there during the short summer, which in alpine regions is not more than three months, and there is no drip at all during the rest of the year because everything is frozen up and the plants under a mantle of dry snow. Upon some estates naturally rocky positions exist which can be adapted with comparatively little

such as to easily drain itself and at the same time hold plenty of moisture. To the uninitiated this may seem a paradoxical statement. Drainage is for the purpose of preventing the existence of stagnant, unabsorbed moisture, and a well-drained soil will absorb more moisture than an undrained one. A sponge, for example, holds a large quantity of water, but absorbs practically none. A properly drained and constituted soil absorbs much water, but holds none in a free state.

A depth of three feet of soil is not too great for rock plants, and it cannot be too rich. It should contain plenty of humus in the form of leaf mold one-fourth; old cow manure, spent hop or mushroom bed, one-fourth; another fourth good fibrous sod that has been piled for at least two years and turned five or six times during that period; the remainder sharp grit,

not fine sand altogether, but a mixture of sand and stones, the latter up to the size of turkey eggs. Briefly, humus and grit expresses the fundamental requirements of rock plants, particularly alpines.

As regards the kind of rock to use, that natural to the district and nearest at hand is the best on economical grounds, provided it does not crumble to pieces on being exposed to the weather. Rocks which have been exposed to the weather and have lichens or moss growing upon them are to be preferred; freshly quarried rock should not be used if any other is available. The use of pieces of concrete, brick, broken columns or any kind of artificial stone should not even be thought of.

There is nothing in mountainous districts where alpine conditions prevail so likely to mislead as the arrangement, or want of arrangement of the rocks. Some of the ugliest and most desolate rock gardens are the result of attempts to imitate the savage chaos of alpine boulders, which is supposed to be favorable to plant life because some alpines, difficult to grow under artificial conditions, are to be found thriving among them at an elevation of 9,000 or more feet. Now we in our gardens can provide an absurd and insignificant imitation of this chaos, but we cannot provide the elevation with the pure mountain air, the sustained winter frost and constant snow mantle, and the continuous summer moisture. The strewing a few boulders about at random will enable a few Stone Crops to flourish among them, but most other plants worth while going to any trouble for will take the first opportunity of dying; and an imitation chaos devoid of vegetation is, in a garden, scarcely less ugly than a rubbish heap.

In studying the rockwork of nature we must know the actual function rocks ought to perform in a garden. If this is borne in mind one can get many valuable hints from alpine districts, both practical and aesthetic. The first of these is that all rocks should be so placed that the roots of plants near them will be able to run under them, and so get protection from drought in summer and from cold and wet in the winter. Some ambitious rock gardens may be seen with the rocks driven perpendicularly down into the earth, in which position they are practically useless. Those who have been in alpine districts will have noticed that the finest specimens of alpine plants are to be found often in conditions not otherwise favorable, but at the edge of a great boulder which slants into the ground, so that their roots can run under it and get coolness and shelter as far as they are likely to penetrate; and it is in the slanting fissures of huge rocks that many of the more difficult plants grow best and most abundantly. Therefore, we should never place a rock without thinking of the plant that is to profit by it, nor should we consider rocks apart from roots, for the sole function of rocks in a rock garden is to protect roots and not to look rugged or picturesque.

Another point is to have the rocks as large as possible so that they may be sunk a good distance into the soil and give continuous protection to deep rooting plants. In making the rockery it is better to build up soil and rocks together, not to place all the soil into position and then place the rocks after. The tops of the rocks should not be very much above the soil, only just sufficient to form pockets; in fact, if they are level with the surface when the rockery is made, the natural sinking of the soil will give them about the right position, for in viewing a rock garden the eye should be filled by plants, not rocks.

There are many alpine plants which grow without rocks at all and thickly carpet the bottoms of valleys among the mountains, forming actual lawns of flowers; but when these plants are brought down into our gardens they invariably need to have their roots protected by rocks.

One reason why the formation of pockets is advantageous is because we can make such additions to the soil in a pocket necessary to suit special requirements of individual species. Some, for instance, prefer a soil containing lime, like the Milkworts and Bee Orchis. One does not usually associate any of the Rhododendron family with lime, but *R. chamaecestus*, a delightful species native of the mountains of Europe, likes it. Another alpine Rhododendron, *lapponicum*, is found upon the New England mountains, but the writer is unaware whether it prefers a soil containing lime or not. Then *Eriogonum*, native of the Rockies, not only likes lime, but also a soil composed of half grit. When lime is added it should be in the form of old broken lime mortar, or broken, not ground, lime rock; burnt or slaked lime should never be used.

(To be continued.)
(Editor's Note.—In the August number Mr. Smith will explain the best planting methods, varieties of alpines best suited to our climate, and the pleasure of gathering a collection of the plants.)

## ROCK GARDEN BUILT BY J. J. HUSS.

The situation of the layout, forming a valley, was naturally quite suggestive of the establishment of a Rock or Alpine garden, the straight walk leading to the sunken garden and connecting also with the extensive fern garden, writes J. F. Huss, in describing the beautiful rock garden he planned and developed on the late J. J. Goodwin estate, Hartford, Conn., and of which we present some views in these columns.

"There may be a great many diversities, tastes or opinions as to Alpine gardens, but as for myself," he writes, "where the aerial position is not extended to an extent where every plant is not in view of, or before us, large tall growing plants would not harmonize with the surroundings." His idea is only to use plants that will not exceed twelve inches as the tallest plants, just as we find them in the Alps, and mingled with low and creeping varieties which will cover some of the rocks, as you will observe in the illustrations. The most beautiful effect of this Alpine flora is attained during the months of May and June. The following collections are those contained in his garden which have given superb satisfaction, especially this season, being an unusual cool one, which seems to have been beneficial, as found in the Alps.

The many varieties of Primulas, Auriculas in many beautiful colors; Polyanthus with all the colors of the rainbow, with Sibbaldia, Veitchi, and others planted in semi-shaded positions, among which are the many varieties of Phlox subulatas, with the three divaricatas, as seen on the left of the illustration, together with Aubrietias and Arabis and rosea, with various Cerasciums and Erysum hanging over the rocks on each side of the paths. Alyssum Saxatile and flora plena of beautiful golden color. Further along we find the following varieties: Betonica rosea, Lychnis splendens fl. pl., Lychnis alpina, Draba olympica, Anemone alpina, Alchemilla splendens, Alsine, Gentiana acaulis. Gentiana Andrewsii, Helianthemum single and flora plena, Dianthus, dwarf Iris, Veronica, Arenaria montana, Campanula in many varieties, Primula, Geraniums, Ajuga, Daphne, Alchemilla, Potentilla, Soldanella alpina, Saxifraga and Sedums in many varieties, Silene, Leontodon in several varieties, with many others too numerous to mention.

## The Question of the Gardener

By Mrs. Francis King, Michigan.

A book on gardening in its varying aspects could hardly omit mention of that man who must be constantly in sight of those who garden, the gardener. the paid, the earnest, the almost always the friendly, assistant in our labors with flowers. That charming anonymous book, which appeared first in the form of letters to the Times (London), "Studies in Gardening." has a chapter, and a capital one, which I would commend, and it is called "Behavior to Gardeners." The few paragraphs I shall commit to paper on the subject will deal partly with this matter, the employer's attitude, and partly with the question of salary or wages; in the latter case taking the gardener's own standpoint.

It has often gone to my heart as a worker among flowers to see the misunderstandings which all too frequently arise between an American and his gardener. And so often this is entirely due to the difference in temperament. The average gardener, slow, careful, methodical, cannot but feel the heckling comments of his employer who wants things done in his way; yet who, in nine cases out of ten, does not know what that way is. The gardener must recognize and resent ignorance, haste, prejudice, and excessive criticism, and particularly is this hard to bear because as a rule the gardener loves his work, cherishes his plants, and, to his credit be it said, does this more faithfully and thoroughly than the untrained gardener for whom he labors.

To take up the other side, for the employer it should be set down that he may himself be a good amateur gardener, coupling to this an imaginative ingenuity which I like to think a characteristic of Americans; and the lack of imagination, the dumb devotion to traditional methods of gardening whose outward and visible signs he cannot but observe on each visit to his garden, go hard with him. It has been my lot to see in several cases employer and gardener antagonistic, and the best interest of an estate languishing under such conditions. One must be friends with one's gardener. I venture to assert that no great degree of success can be reached with flowers unless such is the happy case. Take note of a man's personality, of his temperament, when next you have occasion to decide upon the vital figure for your garden. If the candidate be not "simpatico," know that your garden cannot with him be carried happily, successfully along.

That was a refreshing instance of friendship between master and man shown in an anecdote of the great London flower exhibition, the Chelsea Show of May, 1912, and pleasant it is to repeat it here: "What a true aristocrat is, was forcibly illustrated the other day by an incident concerning the speech of Sir George Holford, who won the King's prize for orchids at the London show, and who, at the Royal Horticultural Society's dinner later, deprecated the great praise given him, saying that his friend Mr. Alexander deserved most of the credit. Mr. Farquhar met him the next day and complimented him on that portion of his speech. Sir George said: 'He is my friend; I never think of him otherwise.' The point of this illustration lies in the fact that Mr. Alexander is the baron's gar-

\*Extracts from the chapter on "The Gardener," from Mrs. Francis King's new book, "The Well Considered Garden." Published in these columns by permission of the author and her publishers, Charles Scribner's Sons, New York.

dener; but the baron never thought of referring to that fact in his speech. He spoke of him as his friend."

This, more remarkable where class distinctions are rigorously observed, has timely bearing upon the relations of master and man in our country, too. But here consideration and respect are not always lacking. . . .

Gardeners, according to classification given me by an expert, should be divided into their several grades as follows: 1. Gardener-superintendent. 2. Head gardener. 3. Working gardener. 4. Coachman gardener. Whose respective duties are:

1. Has charge of the whole estate and with foremen and assistants over the different departments of

greenhouses, gardens, farm, and so on.

2. Has charge of greenhouses and gardens only, with foremen and assistants, does no physical work.

3. Does most of the work himself with laborers and takes care of greenhouse, kitchen garden, and

4. Coachman first, gardener at odd times.

While the immigration laws of the United States classify the gardener as a personal body-servant, and his admission to this country is free from restrictions, in England he is not looked upon as such. He is the gardener in all senses of the word, and in no wellregulated establishment would the employer take the libery of gathering flowers, fruit, or vegetables without the consent of the gardener. Unfortunately, in the United States the majority of gardeners are looked upon as inferior to the chauffeur and the cook.

The American gardener, or rather the gardener emploved on some American estates, is the superintendent of the whole, including the farm and dwelling or mansion; his salary in a few cases being equal to three thousand dollars per year, with many privileges.

From the same authority to whom I am indebted for the classification of the gardener comes also the

following opinion, which I quote verbatim:

"We are unfortunate in this country, not having botanic gardens and gardens carried on like the Royal Horticultural Society in England, where the young gardener is taught the thorough, practical work of the gardener and goes through all departments, even to the menial work of digging, attending to furnaces, etc. In England the gardener has to pay an apprenticeship to the head gardener on some estates. After he has served an apprenticeship to the head, he becomes an assistant, then journeyman, then foreman. So he must have at least ten or fifteen years of thorough experience before he becomes head gardener. The trouble with the American gardener is that he is a specialist either in roses, carnations, or orchid growing, and has not the all-around knowledge of the European trained

"You cannot get an assistant gardener in this country to-day for much less than fifty-five dollars to sixty dollars per month and board. I mean an assistant in a large garden where they specialize in fruit-trees, rose-growing, carnations, orchids, palms and foliage

plants, and kitchen garden.

"This, you see, is far better than some wages paid to head gardeners. I do not think the average wages paid to a gardener in this country would be equal to one hundred dollars per month. In many instances this is the fault of the gardener himself. Most places that I know of are where gardeners have made themselves valuable and created the place. I have in mind at least two instances where gardeners were employed at sixty dollars per month and are now getting as high as one hundred and fifty dollars per month; this all happening inside of five years.'

The question of the gardener's worth in money is surely to be considered as an important one to both sides. A discussion of this matter has lately taken place with a rather unusual freedom of speech in the columns of one of our best horticultural weeklies; and it may be of interest to quote here from some of these arguments. One writer, taking the words of a former Secretary of the Treasury of the United States, begins thus: "In every profession which uses a man's highest powers and lays rigid demand on his idealism and courage it is always sage to assume that up to a certain point these men can be overworked and underpaid, because they are much more concerned with doing their work well than with being well paid for it. But when this imposition begins to reduce them and their families to poverty, they do not, as do workmen lower in the scale, go on strikes. They quietly resign and seek some other occupation. It is commonplace among professions in which idealism plays a part: this idealism is deliberately exploited to the disadvantage of those of whom it is exacted." This, I think, meets the gardener's case exactly, and, so long as conditions are as they are, gardening must necessarily be a labor

Now hear another, this time on the practical side: "The burning question seems to be how to get away from the fifty-dollars-a-month salary limit. There is no getting away from it so long as people of wealth are willing to hire a laborer who calls himself a gardener, at that price. The remedy, to my mind, is to start a campaign of education among the people who are wealthy enough to hire a real gardener and show them by facts, figures, and statistics that they are losing money by not doing so. A good gardener is worth anywhere from one hundred dollars up-just by the same process of reasoning that one would employ in

engaging a lawyer or doctor.

"The larger the estate, the more the responsibility. The larger the responsibility, the higher the salary. If a good man is squeezed down to taking less than he is worth, the greater the temptation to make something on the side. If a poor man, that is, an ignorant man willing to take laborer's wages, is hired, then the estate will suffer not only in that, but in many other ways. So that it is the employing class that the campaign of education should be aimed at. It will do no good to scold the seedsman or other allied interests; nor to split the ceiling in gardeners' meetings about the villainy of those fifty-dollar fellows calling themselves gardeners. One hundred dollars should be the the minimum. More should not be considered anything out of the way if the training, experience and native ability be present. But the employers have to be educated up to that." Proportions should be maintained, salaries of the learned professions kept in mind. I personally believe that \$100 a month is the least that should be offered by those whose fortune fits them to employ an excellent professional gardener.

In all these words, the subject of the gardener, his salary and his position, has been only begun. It is a matter which, with the ever-increasing interest in gardens, must and will be more and more discussed; and in which the gardener's side must be better looked after by his employer than at present seems to be the case. "And if the reply of an alarmed employer might be that all this means higher wages, our reply is, first,

that after all it is very little; and secondly, that the garden must be looked at in a new perspective, not as a tiresome and costly appurtenance every penny spent upon which is begrudged, while thousands are to be lavished on pictures, old china and motor cars, but as a great influence on life.

There is reasoning here as cogent as it is vigorous; I fully agree with this writer, and the more so when I think of the disproportionate use of money by those who would keep down the wages of the men engaged for their gardens; for those labors which go to produce what is becoming daily more and more precious to men and women in this age.

Let us who think seriously of these things not only learn to value the services of our own gardeners more fully, but let us spread our convictions upon the subject, and soon must come a better understanding and agreement between employer and employed.

## QUESTION OF PROPER PROPOGATION.

Editor, Gardeners' Chronicle.

Mr. Barnard is, as I can see, writing from the viewpoint of the plant factory and not from the private gardener's standpoint. Therefore, why did he take issue with the private gardener?

Gardeners still propagate in the old way to a great extent because they have found the results are

The gardener grows his plants on to maturity and the plantsman grows to sell in a young state. I am sure that I am not the only gardener that has been disappointed with stock purchased from the plant factory where every inch of wood is progagated to make a dollar. If it were surplus stock from a good many private places it would go in the dump. Mr. Barnard makes the statement that for twenty years before going west he did not know of any one making a cutting of a plant with a heel, mentioning Geraniums, Fuchsias, Heliotrope, Verbenas, etc., which shows he was not amongst the private gardeners to any extent, for they are still doing it today and no better stock is to be seen any place than on the private estates and I am sure by inquiry you will find that such stock cannot be duplicated by any of the establishments where plants are grown by the million. My contention was that Mr. Barnard's article was misleading in that it would give the reader the impression that his method of propagating gave better results and the gardener not following it was a fool and lacking in progress.

#### Newport, R. I. WILLIAM GRAY.

According to the Department of Agriculture ants do little injury to lawns and gardens and the injury that is attributed to them is usually caused by something else. In large numbers the small conical nests which they build on lawns are somewhat unsightly, and on this account it may be desirable in some cases

GARDEN ANTS DO LITTLE HARM.

Except for the unsightly appearance of their nests, however, the lawn ants do no appreciable harm. They are frequently noted on roses and on other ornamental and garden plants, and it is naturally supposed that they are doing harm to these. a matter of fact, it is not the plants that attract the ants, but plant lice. These tiny creatures excrete a sweet liquid of which ants are very fond, and which they collect without injuring the plant lice. On the whole, they do no harm of any kind except in so far as they lessen the attractive appearance of the lawn. On the other hand, it is quite possible that by bringing up from the lower depths sand and earth they may distinctly increase fertility by forming a top dressing or soil mulch, and at the same time permit better aeration of the earth.

# An Eighty Acre Estate in New York City

By The Onlooker.

Probably some who glance hurriedly through the pages of THE GARDINERS CHRONICLE may at first thought conclude that an error has been made in this headline. "An eighty acre estate in New York City? I hear someone inquire as he adds, "well, yes, but why should THE CHRONICLE branch out into real estate or building site problems?

In all seriousness, however, here we have one of the most trimly, attractive places and beautifully planted gardens it has been my privilege and pleasure to see and describe. It is the property of George W. Perkins, located at Riverdale, in New York City.

The place stands on high ground in an airy elevated location, everywhere abundantly timbered, and while there are spacious lawns and excellent vistas immediately around the house itself, one also finds that these are equally balanced by as much woodland environment through which one meanders under a canopy of leafy Linden trees, Elms, Beeches, Oaks and not a few Pines and Conifers. This wilderness feature is the salvation of such places as those of Mr. Perkins, for while the smaller type of suburban garden or property almost necessarily must be burnished and laid out

upon purely decorative lines in order to be comfortable, pleasant and fitting, a ten-acre or twenty-acre stretch of "Nature unadorned" supplies, in the fullest degree, all that one could get or expect in or on a country estate many miles further from Fifth avenue or Wall Street. Yet all of this woodland belt that stretches far down to the bosom of "the American Rhine" is not strictly unadorned—or not left unaided by the hand of man. This is just the place that Mr. Albert Millard, the superintendent who so faithfully and with much skill manages the estate, has seized upon for the naturalization of Daffodils, Tulips and other Holland bulbous stock.

The outstanding features from the gardener's standpoint are the very well-kept lawns and tall umbrageous trees, without which no garden has any dignity or measure. Secondly, and as the balancing factors in the layout, there is a handsome and solidlybuilt pergola, a high retaining wall, balustraded above the line of the lawns, together with a children's playhouse as an architectural addition forming a very useful, agreeable and satisfactory terminal to the terrace



A VIEW OF THE ROSE GARDEN ON THE COUNTRY ESTATE OF GEORGE W. PERKINS AT PIATROALE WITHIN THE CHARLOS TIMELS OF NEW YORK, WHERE ALBERT MILLARD PRESIDES AS SUPERINTENDENT

Thirdly, the adorning features of choice shrubbery groups and belts, remarkably well filled herbaceous borders, and on the crown of all, a highly natural-looking rock garden. Evidently the rock upon which New York City is built extends here, too, and stratified layers of it crop out in such a way as brings back to mind little prominences and cameos of true hill-land scenery. Who says that rock gardening in America may not be made a bright and interesting feature is truly behind the times—a man of pessimistical or foreshortened outlook. Why, here are sheets of the double and single-fringed Pinks which, even when

On the left or north side there is a hexagonal shaped Summer house, its base and sides built of stone, also the stone piers, but the roof was formed of cork bark. This gave a rustice effect and kept it well in harmony with the garden. Sempervirums, or House Leeks, were colonized here and there in niches of the bark.

From this collection of alpines a few steps takes one on to the lawns with the pergola marking the division between them and the rockery. This pergola forms a right angle, running first down then across. Each way it is about 100 feet in length, 9 feet high and 9 feet wide. The walls and pillars are of stone, the



THE PINE NILEAR WALK ON THE GLO W. PERKINS ISTATE AMONG THE RHODODENDRONS. MORE THAN FIFTEEN HUNDRED OF MANY VARIETIES ARE PLANTED HERF.

only their stems and leaves remain, are ornamental. There are also Sedums and House Leeks, Heucheras or Alum root, Poppies—the Peacock Poppy, the orange-colored pilosum and the Iceland varieties for later flowering, and such vigorous and desirable plants as Saponaria ocymoides, the Soapwort, Cerastium tomentosum, popularly called Snow-in-Summer; the gray-leaved, blue-flowered Veronica incana (Speedwell), the double white Arabis or Rock Cress, with its companion of the early spring, the yellow Allyssum saxatile fl. pl.

This rock garden occupied the crown of the highest ground and was perfectly open, although sufficiently sheltered in its outward surroundings by tall trees. It gently sloped on at least three of its sides.

roof of wood beams with scalloped ends abutting beyond the longitudinal supports. Here are Roses in variety, Wistaria, Lonicera Halleana, Vitises, and dwarfed subjects for the lower parts.

Upon the lawns parallel with the pergola were lines and groups of neat golden Privet, a shrub that is accessible to every one and ought to be far more liberally used for brightening up many a corner.

It is a pleasant outlook—the wooded slope across the water, the lawns, terraces, flower borders and big trees where we stand. These flower borders lie westward from the pergola and below it. They are thus in view from two sides. The outline is sinuous. Here are great golden colonies of Helianthus, Rudbeckia, Coreopsis; blue masses of tall Delphiniums, the light blue Belladonna

among them. Contrasting with these are the grouplets of Lilium candidum, the white Madonna Lily, Lychnis chalcedonica, with its fiery scarlet clusters; gorgeous Peonies, both here and by themselves in other beds nearby; frontal plantings of Antirrhinums, Verbenas, Sweet Williams and Godetias. These groupings were not promiscuous, but were massed in colors of one kind, thereby getting the best and fullest tone effects. Away behind, or in line with the Delphiniums stood rank upon rank of stately Hollyhocks, and here and there the bold, handsome foliage of the Plume Poppy (Bocconia cordata).

German and Japanese Irises colonized and flourishing in almost wild prodigality as an adjacent feature in this part of the garden, deserve notice. So do the beds of fine leaved Japanese Maples. The late flowering Ligustrum Ibota (white), reminded one of the display of the Persian Lilacs that had been in bloom some time earlier. Some of the recently introduced Nephrolepis ferns were planted at a corner where two paths diverge. This was under the shade of trees, and strongly flowered plants of the orange colored Primula Bulleyana were intermixed. Touches like this greatly interest the advanced student of gardens and flowers. Then not far away another bend of a border, this time in front of shrubs and just clear of the shade of the trees, was devoted to regal Pelargoniums—those beautiful plants that used to plague the life out of us in our English and French and German gardens when we so carefully grew them in pots in greenhouses. How easily they were overwatered and sickened and died; how prone they were to the attacks of aphides! And the drying off, and the pruning back and repotting. Yet here they were smothering themselves in bloom in the rudest of health and vigor, as if expressing satisfaction at being free from the trammels that man imposes.

Beside the play house already mentioned there is a large open-air swimming tank. A tennis court is another recreational provision, while as distinctive from the purely ornamental there are very compact fruit gardens of nearly an acre, comprising Raspberries, hardy Grapes, Blackberries, Strawberries and other things, all closed about with a tall wire netting screen; and an ample vegetable garden away down out of sight near the river.

The glass houses, too, yield Melous, Cucumbers and Tomatoes, although some of these are grown in unheated frames, and Roses, Carnations, Sweet Peas, Chrysanthemums, Gardenias, ferns and foliage plants

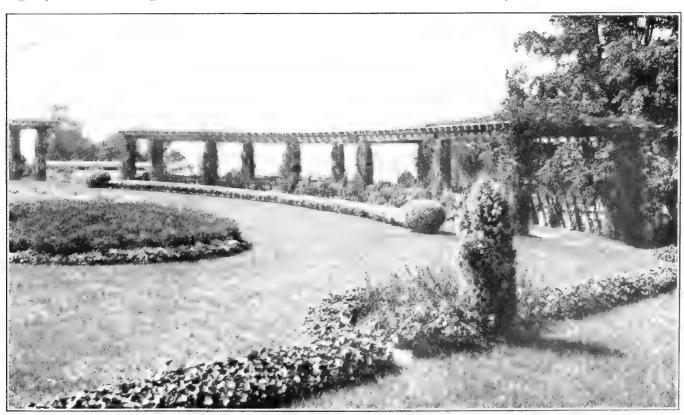
mainly fill the span-roofed greenhouses.

A Pine-needle path under Pine trees and Hemlocks skirts the outer grounds and around the fruit garden, the needles being brought from Pennsylvania woods annually so that the soft, carpet-like surface with its faintly resinous odor, remains fresh and clean always. The Pine-needle walk is hedged about with Rhododendrons, wild ferns (Aspidium), and here, too, has the Lily of the Valley become naturalized.

Lastly may be mentioned the formal Rose garden, a pretty geometrical rosary of long, rectangular beds on the grass, with other crescent shaped ones filling in the corners. Standard as well as bush Roses were here, the standards having their stems bound in hay bands to prevent sun scald. They were loaded with bloom—Druschki, Mrs. Laing, Ulrich Brunner and others. In the beds we see Rayon d'Or, the new golden yellow, flowering freely. General McArthur is a fine red, but the collection as a whole contained many of the finer hybrid perpetuals and hybrid teas.

One cannot but think that Mr. Perkins and family, together with their friends, must greatly enjoy the peace, quietude and refreshing storehouse of charm, beauty and interest of their wonderful estate—wonderful because so complete in its many features, because of its rus in urbe effect, and because of the gen-

eral excellence of its subjects.



FROM THIS TERRACE ONE LOOKS OUT BEYOND THE PERGOLV ON THE WORLD RENOWNED HEDSON RIVER. WHICH TOWS
PAST THE ESTATE.

# Garden Perennials That Thrive Under Neglect

By Stephen F. Hamblin, Massachusetts.

There is a great difference in the amount of attention that perennial herbs in the garden require for a fair amount of growth and a good bloom. I do not refer to common wild flowers that may be introduced near the house, for such will of course do very well when left to themselves, if planted in proper soil. But a great many plants, once brought from distant lands, or from other parts of our country, are so sturdy of growth and indifferent to soil conditions that they are permanent features of home grounds when once properly planted, even if grass is allowed to try to choke them, and fertilizer and cultivation are unknown.

I don't mean that they are used in "wild gardening" experiments, nor planted in "any old place" to shift for themselves, but started in garden soil and intended to give a garden effect. These are the ones that persist, but do not spread, in old gardens long after the garden builders, and the house that sheltered them, have moulded in dust. Many a grass-grown "old-fashioned garden" still has every year thrifty clumps of Creeping Phlox,

Feony, German Iris, Thread Lily, and others.

For several years I have been interested in an "oldfashioned garden" in Massachusetts where absolutely no care has been given to the plants for five years—not a weed has been pulled, not a plant removed, nor has the spade been used to loosen the soil or reset plants that have become crowded or starved. They have been left to fight their own way among each other. A heavy loam that bakes dry in summer and becomes soggy in winter makes the struggle for existence much harder.

Some of the plants have been in place at least ten years, and formerly they were cultivated after a fashion. but never enough for their best development. No two garden spots ever offer the same conditions for plant growth, but this list will be found fairly representative of results in other plantings. Though in this garden there are shady spots, due to the presence of large shrubs, these notes were taken on plants that had nearly full sun.

This list has little meaning when taken by itself, or as absolute test of what plants will do under crowded conditions, for many plants failed here that in other places will do very well. Even with the same piece of ground there would have been more survivals had there not been so many shrubs there. A good many native plants, not mentioned in the list as they would naturally be self-supporting, were planted in this garden, and their vigor has been at the expense of the garden-like sorts. The biennials mentioned are about as numerous as when planted some six years ago, but they are not in the places where planted, but push up among the lower herbs and between the shrubs. This shows their power of self sowing; in a more open garden they would have increased more.

The negative list of those that failed is the least valnable for another spot would give the plants different conditions. Those that failed this time to hold their own were low growers that were smothered, spreading herbs that crowded themselves and should have been divided, or free bloomers that exhaust themselves. They are all hardy and thrifty, but when under cultivation, not when

left to themselves utterly.

Those that stayed and bloom nearly as well this year as they did five years ago are to be particularly commended for their strong constitutions, for herbs that can survive the treatment they got in that place will never fail anyone under the ordinary conditions of any garden. They may be made the mainstay of any planting. The

list can be made longer, for only a part of the plants seen in gardens were tried here, though perhaps at the time of planting the preference was given to the species that have been favorites in gardens for at least a half century.

#### PLANTS THAT THRIVE AFTER FIVE YEARS' NEGLECT.

#### Tall Herbs.

Garden Lupine Lupinus polyphyllus blue, white, pink, Balloon-flower Platycodon graudiflorum—blue, white. German Iris - Iris germanica - various colors. Yellow flag - Iris pseudacorus - yellow. Plaited Flag – Iris plicata Mad. Chercau – pale bluc. Siberian Iris – Iris sibirica – bluc, white. Late Siberian Iris Iris sanguinea, and var. Snow Queen-blue, Lemon Daylily Hemerocallis flava yellow. Double Tawny Daylily—Hemercocallis fulya fl. pl.—orange.

Late Lemon Daylily Hemerocallis Thunbergii—yellow. Orange Daylily—Hemerocallis Dumortieri—orange. Tiger Lily—Lilium tigrinum orange. Yellow Japanese Lily Lilium Henryi yellow. Garden Peony-Paeonia albiflora-red to white. Solomon's seal Polygonatum multiflorum Gasplant Dictamnus albus pink and white Perennial Pea -Lathyrus latifolius-pink, white. Oriental Poppy Papaver orientale scarlet. Peachleaf Bellflower Campanula persicitolia Scarlet Lightning Lychm's chalcedonica scarlet. Garden Phlox Phlox paniculata various. New England Aster Aster nova-angliae purple, rose. Tickseed-Coreopsis lanceolta-yellow. Golden Glow-Rudbeckia laciniata fl. pl.-yellow. Oriental Larkspur—Delphinium formosum—blue. Meadow Sage Salvia pratensis blue. Spider Lily Tradescantia virginica—blue, white. White Snakeroot—Eupatorium articifolium white. Amsonia—Amsonia Tabernaemontana blue. Thread Lily Yucca filamentosa white.

#### Low Herbs.

Bloodroot—Sanguinaria canadensis—white Dutch Crocus Crocus vernus blue, white, Lily-of-the-valley-tonvallaria majalis-white. Star-of-Bethlehem Ornithogalum umbellatum white. Daffodil—Xarcissus Psuedo-Xarcissus Von Sion—yellow Poet's Narcissus Narcissus poeticus—white. Grape Hyacinth Muscari botryoides blue. Autumn Crocus—Crocus speciosus—blue. Rock Speedwell—Veronica rupestris—blue. Common Speedwell-Veronica officianalis-blue. Myrtle Vinca minor blue. Darwin Tulips Tulipa Gesneriana various. Creeping Thyme Thymus Scrpyllum pink. Silver-bell Stellaria Holostea Scotch Pink—Dianthus plumarius—pink, white. Showy Stonecrop—Sedun spectabile—pink. Creeping Phlox Phlox abulata pink, white Creeping Stonecrop-Sed m stoloniferum-pink. Yellow Stonecrop—Sedum Aizoon—yellow. Greek Valerian—Polemonium reptans -blue. Meadow Saffron-Colchicum autumnale-pink, white. Chinees Larkspur-Delphinium grandiflorum-blue, white, Crested Iris Iris cristata - blue. Dwarf Iris Iris pumila blue. White Plantain-lily—Hosta plantaginea—white. Lance-leaf Plantain-lily-Hosta lancifolia-blue. Sweet Violet Viola odorata-blue.

#### Biennials That Self-Sow.

Sweet Rocket-Hesperis matronalis-pink, purple, white Columbine - Aquilegia vulgaris - purple, white. Feverfew—Chrysanthemum Parthenium—white. Sweet William Dianthus barbatus—various. Orange Coneflower-Rudbeckia fulgida-orange.

#### Perennials Lost After Five Years of Neglect.

Japanese Iris -Iris Kaempferi. Perennial Flax Linum perenne. Persian Daisy—Chrysanthemum coccineum. Blanket-flower—Gaillardia aristata. White Boltonia—Boltonia asteroides

Pink Boltonia latisquama Sneezeweed Helenium autumnale. Bee-balm Monarda didyma. Hardy Chrysanthemum Chrysanthemum Lortorum. Musk Mallow Malya moschata. Hybrid Larkspur Delphinium hybridum. Japanese Lily Lilium speciosum. Late Monkshood Acoustum autumnale, Yellow Foxglove Digitalis grandiflora. Scarlet Beardtongue | Pentstemon barbatus Torreyi, Carpathian Harebell | Campanula carpatica. Tuffed Pansies Viola cornuta hybrids. Sea Thritt Armeria vulgaris. Carolina Phlox Phlox ovata. Silvery Chickweed Cerastium tomentosum. Mountain Cornflower Centaurea montana. Goldfutt Alyssum saxatile. Snow-in-summer Arabis albida. Perennial Candytuft—Iberis sempervirens. Pin-cushion-flower Scabiosa cancasica. Japanese Speedwell-Veronica longifolia subsessilis.

#### SCHIZANTHUS CULTURE.

By Staneby R. Candelr, New York.

Where greenhouse space is limited and a continual display of flowers is expected, one must always be on the lookout for flowering plants that are quickly raised, quickly grown and quickly brought into full flower; so one cannot overlook the Schizanthus as one of the best subjects for greenhouse and conservatory decoration, the cultivation of which is within the reach of all who possess a cool greenhouse.

The Schizanthus is sometimes called the "Butterfly Flower" after the shape of the flower; it belongs to the natural order of Solanaceae. The flowers, which are of the most varied and brilliant colors, are borne on terminal cymes (a cyme being the botanical term employed where the first axis of the inflorescence ends in a single flower and opens first); the corolla or throat is, as a rule, of the darkest color in each single

flower, thus giving a very fine effect.

The reason this plant is of such value is that it can be readily raised and it has wonderful decorative character, as it can be had in flower either in mid-winter or in early spring, just as the cultivator requires. Its usefulness does not end as a decorative plant, for as a cut flower it can be used with wonderful results, being of such a light and graceful habit that it is most valuable as a subject for dinner-table decorations. In fact, in its season it has no rival and for gracefulness it will surpass the delicate effect of the sweet peas when used for the above-mentioned purpose. It is the light branching habit of the Schizanthus which gives it such a graceful effect.

CULTIVATION.—The best season to sow the seed is in August. Some sow in July, but there is nothing gained by early sowing; that is, if the plants are required to flower in spring, which is the most popular season to

flower them.

Seeds should be sown very thinly in pans or boxes, taking good care that the soil is well drained; a light soil of poor nature is best for sowing purposes; never sow seeds in a highly-manured soil. These boxes should be placed in the coolest section of the greenhouse or in the cold frame to allow germination to take place. As soon as the seedlings are large enough to handle, pick them off into boxes or pans about 2 inches apart and employ a very light, well-drained soil in this case, placing them in a light, airy place, as light and air are most essential to the well being of this plant. As soon as the plants have become established and make enough growth it is advisable to pot them singly in 2½-inch or 3-inch pots (here employ a soil composed of loam and leaf soil, two parts of loam and

one of leaf soil, to which add a little grit). Once they begin to grow it is advisable to re-pot into larger pots according to growth of roots; but do not over-pot; only give a slightly larger pot each time. Do not pot to firm, as that is harmful to the young roots of this plant; also do not allow the plants to become potbound before re-potting (pot-bound means when the roots are formed into one hard ball within the pot). Always make sure the pots are well drained by employing a few pieces of broken pots as drainage and place a few semi-decayed leaves over this drainage; this will prevent small soil from working between the broken pots and thus making good drainage impossible. After each potting, water with great care; in fact, keep the plants on the dry side till a few roots have been made; otherwise over-watering at this stage would cause the soil to become sour.

Should the plants be inclined to flower early or make straggly growths, it is then advisable to pinch out the long shoots, thus giving the plants a bushy and compact habit. When the plants have been potted into the final pots and the pots become filled with roots, then they can be fed with liquid stable manure or farmyard manure; also a change of soot water could be given with great advantage at this season. Soot water is of great value to most all plants grown in pots, as it acts in two ways—first, as a stimulant: second, as a cleanser of the soil, as worms do not like

soot in any form.

At all times give plenty of ventilation, but do this with great judgment; otherwise bad ventilation will soon end in diseased stock. Avoid cross draughts and cold winds. It is very advisable to stalk the plants, and this should be done after the first or second potting, according to state of plant. Enlarged stalks should be placed at each potting; that is, always keep one centre stalk until the final potting and then the plants can be shaped out to the grower's requirements. Strong twine makes a very neat and safe support.

When purchasing Schizanthus seed it is always advisable to obtain same from some reliable seed house. as there are so many inferior strains on the market that unless you have a good start with seed from a good strong stock, you will have trouble all along

and results will be very disappointing.

The Schizanthus Wisetonensis hybrids are the best to grow and are most commonly employed; these are the results of continued selection and hybridization on the part of the horticulturist.

The Schizanthus are annual herbs from Chile, some

six species being known.

#### PROTECT YOUR TREES.

"Many of the fine remnants of former torest glory or of old time planting which adorn the grounds of our wealthy citizens and of our note humble home makers, go to passes gradually, unobserved and unnecessarily, because of neglect and carelessness; a little care at the proper time would have saved the investment which cannot  $\Gamma$  duplicated in the exercis literary  $\Gamma$  B, F, Fernow.

When trees are dormant there is much work that may be done to promote their growth and protect them against injury. A little attention at this period in the way of pruning and the destruction of fungi and the various insect pests will prove beneficial and save much time and labor later. In late fall or early spring is the proper time and land later. In late land of early spring is the proper time for planting all decidous varieties. The important work of tree surgery may also be carried on successfully during the winter time except in severe cold weather.

"Eternal vigilance" is the price of thrifty trees as well as of

liberty and many other blessings, and the enthusiastic tree owner knows neither times nor seasons in his watchful care. it is labor of leve, and one which repays a hundredfold. Tree Talk.

# Work for the Month of August

Conducted by Henry Gibson, New York.

THE PLOWER GARDEN.

Cleanliness is the order of the day in this department. Continue to remove spent flowers, as the plants will soon cease to bloom if seed pods are allowed to develop. Dahlias, hollyhocks and other tall-growing subjects must be secured to supports or they will fall

a prey to strong winds.

Roses of the rambler, or climbing types, are now making strong basal growths which will provide next year's show of blooms. These should be tied in whenever opportunity offers. The rapid growth of these plants indicates the activity of the roots, which should be kept regularly supplied with water. Old-established plants will be benefited by liberal applications of liquid manure.

#### SEEDLING PLANTS.

Numerous kinds of perennials and other seedlings will be ready to transfer to nursery beds this month. By planting them while they are quite small the danger of having long-stemmed, leggy plants is avoided. If they are left in the seed bed until they become drawn it will be necessary to plant them deeply in the nursery beds. This in itself is not a difficult matter, as they can be readily dibbled in, but when they have to be replanted to their permanent quarters a considerable amount of labor is involved with leggy plants.

#### THE VEGITABLE GARDEN.

Rhubarb should never be allowed to flower unless seed is wanted. As soon as the flower stalks appear they should be cut off close to the ground. Whenever there is room, late crops of beans, beets, turnips, radish, lettuce, etc., may be sown. Keep the tomatoes tied up and disbudded. Endive also requires tying up for bleaching. Continue to earth up early celery as it requires it. Onions should be harvested this month. A sowing of Grand Rapids lettuce for growing in frames or under glass can be made now. Late celery may still be planted. Care should be taken to keep the ground between the growing crops well cultivated. Many weeds mature this month and in doing so produce countless thousands of weed seeds, which are bound to cause trouble another season.

#### THE FRUIT GARDEN.

Strawberries may be set out this month. Set the plants firmly in the soil, and keep all the runners pinched off. The ground will need to be deeply dug or ploughed, after having had a liberal application of well-decayed manure applied. Two feet between the rows is not too much. Don't overlook a few plants for forcing.

Go over the vines to ascertain if the grapes are developing evenly. If there are signs of too many bunches being left to mature, don't hesitate to thin them out. Those left will be of much better quality.

The old canes of the raspberries and blackberries should be cut away and the young ones thinned out, taking care to leave the most vigorous canes. These may be headed back to about four feet in height, thus inducing them to produce laterals that will also bear fruit next season.

#### THE GREENHOUSES. (THE ROSES.)

The object of the rose grower at this time of the year should be to have the plants growing strong and healthy and so lay a good foundation for the winter.

August is a most trying month for roses; the hot, sultry days, combined with cold nights, are very conducive to an attack of mildew or black spot. Don't hesitate to even up the difference between day and night temperature with a little heat in the hot water pipes if necessary.

#### CARNATIONS,

The planting of field grown stock should be pushed ahead with all possible speed. Give the houses a little shade for a few days until the plants show signs of renewed root acton. A light coating of lime doesn't take long to apply, and it makes the actual planting a much more congenial task for the men who are doing it than would be the case working in an unshaded house.

Spraying two or three times a day, as conditions seem to warrant, will greatly assist the plants to recover themselves. If early blooms are wanted the leading shoots should not be pinched back.

#### CHRYSANTHEMUMS.

There is no end to the work among the Mums during the next few weeks. The plants are growing rapidly and must have adequate supports and be carefully tied up if straight stems are wanted. Disbudding takes up a good deal of time, and must be faithfully attended to in order to get the best results. After the middle of the month the buds of many of the midseason varieties can be taken. It takes from six to eight weeks for a bloom to come to maturity after the bud is taken, a fact that should not be overlooked when the operation is performed.

Once the buds are formed, moderate applications of fertilizers, or weak liquid manure, will be beneficial. Feeding chrysanthemums before the buds have formed is a much mooted question among growers, but as space forbids discussing this matter at length now, we will leave it over until next month.

#### \MARYLLIS.

These subjects are now making vigorous growth and if plunged in frames, much less work will be experienced in keeping them watered. The sashes should be raised, both top and bottom, all the time. Sufficient shade should be provided to prevent burning of the foliage.

Syringing frequently greatly accelerates the growth and also keeps the plants free from mealy bug and red spider. Liquid manure once a week now, and twice later on will assist greatly in making good strong bulbs by Fall.

#### CALLAS.

Callas that have had a rest during the past five or six weeks should now be started into growth. Such as show signs of a sturdy crown growth are good for another season. Shake them out and place into suitable sized pots. Three parts good loam and one of cow manure makes a very good compost for callas. Good drainage is essential. After potting they may be stood in a cold frame for the next month or so.

#### MISCELLANEOUS PLANTS.

Continue to pot poinsettias as they require it; also cyclamen, cineraria and primulas.

Seeds of cyclamen, cineraria, calceolaria, schizanthers, mignonette, sweet peas should be sown now.

# Ornamental Fowl for Parks and Gardens

A MONTHLY TREATISE ON THEIR CULTURE.

## PHEASANTS AS INSECTIVOROUS BIRDS.

By Prof. W. H. Olin, Colorado.

The pheasant, especially the Chinese ring-neck and English varieties, are the most valuable insectivorous birds, as well as the most attractive and eagerly sought game bird of all the species that can be reared in captivity or in a semi-domestic way and be kept in the district in which it is propagated.

The great majority in numbers and kinds of the insectivorous birds are migratory—are only with us a short time—while the pheasant, especially the kinds above mentioned, becomes attached to the locality and will breed and remain there as long as they are protected and can secure food.

Thousands of these gorgeously plumed pheasants



CHINESE RING NECK PHEASANT

with a wealth of feathered adornment, some of which shine in the sunlight as burnished gold and bronze of many shadings, with grace of form and carriage, the private property of W. F. Kendrick, in charge of his own game keepers, are kept on exhibit at City Park, Denver, for the education and entertainment of the visitors, yet few realize their economic value.

The pheasant is naturally an insectivorous bird, and where such food is obtainable he will eat compara-

The variety of the insect food of the pheasant is larger than any other bird, so far as known. Investigations show that over 130 species of insects, including earthworms, are eaten by the pheasant, and doubtless many more will be found to

share in its menu.

In addition to this it is especially fond of small rodents, such as field mice, young gophers and small snakes. England a number of pheasants have been found choked to death in the attempt to swallow worms larger or longer than they could manage; also several pheasants have been found dead, choked on small rodents.

The keeper of most any large pheasantry has seen his pheasants catch mice that were stealing the grain from the birds. This is verified by Mr. Fred Barnett, superintendent of the pheasantries at City Park, Denver, Col. Mr. Barnett says that a pheasant hen will catch and destroy a mouse as quickly as a cock pheasant or cat, as he has frequently watched them in the act.

Among the insects destroyed by the pheasant are included smelling bugs, that most birds will not touch -this makes these birds more valuable to the farmer than any other.

Prominent among the pests ravenously destroyed are the Colorado potato beetle, the squash bug, the cucumber beetle, the bean leaf beetle, tomato worms, cut worms and the millers which deposit the eggs for the wire worms. The pheasant also digs for and eats the wire worms, as it does all ground worms and bugs, and practically all kinds of ground beetles. Most birds avoid the potato and other bad smelling bugs on account of their obnoxious odors, but the pheasant hunts and eats them.

The pheasant chooses the dandelion and the bulbs of buttercups as two of its greatest vegetable delicacies. He eats but comparatively few buds from bushes and trees, excepting in severe winters. In this way he is quite different from the grouse. Of the grasses he has liking for white and red clover, alfalfa and red and yellow sorrel, but when there are plenty of dandelions and buttercups he will make those his principal vegetable diet.

In the winter time pheasants can be seen turning over forest leaves and examining them and picking off the larvae of different tree insects deposited on the under side of the leaves; also picking over the top soil around bushes and trees for the bugs and larvae.
Tegetmeir-English says: "The value of pheasants

to the agriculturist is scarcely sufficiently appreciated; the birds destroy enormous numbers of injurious insects—upwards of 1,200 wire worms have been taken out of the crop of a pheasant; if this number was consumed in a single meal the total destroyed must be almost incredible."

It is fond of carrots, potatoes, beets, cabbage and turnips in the winter time, although if dandelions are fed to caged pheasants they will eat them in preference to most any vegetable food, roots and all.

The pheasant is also very fond of many of the wild weed seeds, such as legumes, thistles, especially the burr thistle, wild carrots, sunflowers, wild lettuce. mayweed, marsh elder and mustard seeds.

\*Continued on page 320.)



DOMESTICATED MAILARD DUCKS ON THE LAKE IN GRANDS FARM, THE COUNTRY HOME OF AUGUST A. BUSCH, ST. LOUIS, MO (See page 323.)

#### EUCHARIAS AMAZONIEA.

The accompanying illustration, which shows a house of the well known choice exotic plant Eucharias Amazoniea, is a collection grown by William Morrow, superintendent of Mrs. H. O. Havermyer's estate, Palmer Hill, Stamford, Conn. It should be grown more generally where fine flowering stock is found, for there are few flowers that can be called superior to the white flower of the Eucharias.

A side bench in the palm house, where they will have some shade and bottom heat, will suit them nicely. They would also do well on a back bench of a rose house, but shade would be necessary in such a position. A bench three feet wide, of cypress boards one and a half inches thick, placed half an inch or more apart, so as to insure good drainage, seems to suit them. Two inches of roughly chopped, fibery sod, with part of the soil shaken out, should be spread over the boards or bench bottom and pressed down level. The bench can then be filled with chopped sod and leaf mould or old manure in equal parts and with a good cast of sheep manure and crushed



A HOUSE OF EUCHARIAS AMAZONIEA. THIS PLANT IS RARELY GROWN IN SUCH QUANTITY,

charcoal well mixed in. This will subside an inch or more after being planted and watered. Set the bulbs in rows across the bench, about nine inches apart in the row and sixteen inches between the rows. This may seem rather wide at first, but during the second year the space will nearly all be taken up, they make sidings so fast.

There ought to be room for the hand with the hose to get in to spray the under side of the leaves. This is important, as it is the only cleaning to keep down insects, and should be done right along, except when the flowers are open. When the bench has been filled with roots an occasional dose of manure water should be given during the six weeks of their growth. When the last leaf is almost full size and no new ones coming up, it is time to withhold water from the bench, except what they get in the way of spraying of the leaves, which will generally keep the soil damp enough.

Care should be taken not to let the soil get dust dry at any time, even when resting, which will take five or six weeks. As soon as they begin to send up a few flower spikes the bench should get a thorough watering. Two days after give another, this time with sheep or cow manure. The temperature need not be over 55 at night and better spikes of flowers will be obtained than if more heat is given. In the growing period the heat had better be kept up to 60 or more. The first year one good crop of flowers is all that should be expected, but after that two or three good crops a year,

with a few straggles between time, can be had. A bench planted this way, three feet wide and 30 in length, will give over 300 spikes at one crop after the first year. And a house with several such benches could be kept producing almost continuously with a little juggling in growing and resting at different periods.

#### PHEASANTS AS INSECTIVOROUS BIRDS.

(Continued from page 319.)

As a table food, and also as a game bird, the pheasant has been held as the leading bird for these two qualities by the kings, royalty, wealth and educated people of the world for more than two thousand years as being of the greatest sport and richest delicacy. No other bird has held such a position, and it will be a long time before any other bird can gain such distinction.

The home of the Chinese ring-neck is largely in the mountains, as well as in the valleys of China, and they are accustomed to very severe weather, as it inhabits

the high altitudes, and yet adapts itself to the lower altitudes, as low as sea level. It is a thoroughbred bird and has been imported into England in considerable numbers to breed up the English pheasant. Chinese ring-neck pheasants are doing well liberated in the mountains of Colorado up to 9,000 feet altitude.

The Fcathered World, London; Frank Finn, F. Z. S., says: "The Chinese pheasant, like his human fellow countrymen, is very hardy, and will thrive anywhere, bearing the cold of a northern United States winter and the heat of a Bengal summer quite well. It is also a good breeder and bears confinement well."

At the last annual meeting of the New York Zoological Society \$60,000 was given to be used entirely for the study of pheasants and the best methods to be

adopted for the introduction and distributing of these birds into the United States.

In a number of States the next Legislature will be asked to pass liberal appropriations for propagating the pheasant and other insectivorous and game birds and the distribution of literature to instruct and aid the people in the hatching of the eggs.

#### THE VALUE OF CULTIVATING.

Go where one may at this time one sees cultivators busily at work in all the fields. This is one of the operations cease-lessly performed by farmers and gardeners, as the value of surface scarifying, not only for the elimination and prevention of weed growth, but for the conservation of moisture, has been appreciated for many years, and its value proclaimed from the house-tops, so much so that the least experienced of growers knows its value. We have had sufficient rains in most sections to keep the heavier soils supplied with moisture for the next five, six or seven weeks, provided that this surface tillage is maintained. What this cultivating does is not theoretical, and is a matter of fact; it breaks the capillary tubes of the soil, and by choking them over with a dust mulch, prevents evaporation. This evaporation goes on all the day in caked and rain-beaten soil, whereas the dust-like or broken surface is an antidote to it.

One thing should be noted in connection with irrigation systems: the grower is apt to water at short intervals and instead of giving a soaking, gives comparatively small amounts. This causes a surface rooting tendency in the plants and develops soft growth. The proper thing is to give eight or nine hours of steady overhead irrigation, which would be equal to about an inch of rain, thereafter to allow the ground to dry out as it would do naturally after rain, and instead of watering, to cultivate just as one would if the irrigation system did not exist.—Florist

## Flower Shows as Business Promoters

The First National Bank of Joliet, Ill., held its first annual flower show on June 10, 11 and 12.

In the May number of The Banker (the house organ of the First National) which is sent out to 12,000 homes in Will county, there was an announcement of the flower show, inviting everyone to attend and to exhibit any flowers they might have growing in their gardens. In this announcement the offer of the prizes was made. The four first prizes were silver trophy cups for the best exhibits of three red peonies, three white peonies, three pink peonies and the best collection of irises. The four second prizes in these classes were full year subscriptions to The GARDENERS' CHRON-ICLE OF AMERICA. The general conditions that governed the contest were also stated, namely, that all flowers shown in competition must have been grown in Will county by the exhibitor; that no exhibitor could take more than one prize.

Willard Clute, editor and publisher of The American

Botanist, acted as judge.

When the show opened on the morning of June 10 the bank was gorgeous in color with artistically arranged masses of peonies, irises, carnations, garden and hot house roses, pansies, gladioluses, sweet peas and phlox grouped in the center and along the sides of the banking room. Large jars filled with peonies were arranged along the balcony railing and on top of the cages. Down the length of the banking room stood a table on which were close to seventy-five exhibits of peonies and irises entered in competition.

The exhibits of the six florists of the city played no small part in the success of the show. Each was distinctive and individual.

For three days crowds of people came and went, many returning with their friends and members of their families. The officers were in constant attendance making friends with the visitors. Every day interesting novelties in plants and floral pieces were brought in and the spent flowers were replaced by fresh ones. The show brought such crowds of people to the bank, and the interest of the community in the show was so strong that it was decided to make it an annual affair. From a publicity point of view the bank has never attempted anything that was more successful.

Thousands inspected the flower show which was held on Saturday, June 12, at the Second National Bank, Paterson, N. J., under the auspices of the Paterson Floricultural Society. Hundreds of magnificent blooms were exhibited and a great deal of interest was shown in the awarding of prizes. The judges were: James McCollom, superintendent of the public parks; Arthur Vescelius, florist, and Thomas Heminsley, a grower. The entire display was under the management of Wessels Van Blarcom, assistant cashier of the bank.

The flower shows which are given at the Second National Bank are the result of a suggestion made by Mr. Van Blarcom two or three years ago that the Paterson Floricultural Society bring in some of their

best blooms for the benefit of those who may love to look at flowers, but are not especially fortunate in growing them. Once started, the shows have continued. In the spring roses and peonies, with such other flowers as exhibitors choose to bring in. Again in the Fall dahlias and other Fall flowers, with chrysanthemums to close the season. Thousands of visitors go in to see the blooms and a considerable proportion of them go away determined that they will grow flowers themselves next year. The Paterson Floricultural Society is made up of enthusiasts in floral culture and they have given freely of their time and influence to make these shows a success.



UPPER PICTURE CORNER OF BANKING ROOM, FIRST NATIONAL BANK, IOLDET, BLES, LOWER PICTURE BANKING ROOM, SECOND NATIONAL BANK, PATERSON, N. J.

# Concrete for the Country Home

The present insistent demand for the substitution of durable, sanitary and fire-resisting materials for those not possessed of these properties has been a pronounced factor in hastening the adoption of concrete. The change means impervious and monolithic structures as opposed to those consisting of the more familiar types of masonry with their attending wooden features of combustible nature, the latter also affording refuge for much that is noxious and unsanitary. This enduring method is now applied to all sorts of construction work.

Small buildings, for one purpose or another, are always required on the country estate. These structures include garages, stables, wagon houses, poultry houses and buildings designed for many other purposes. A common source of annoyance and expense is the decay or giving way of building supports and foundations. When this occurs it is considerable trouble to replace these with new timber or ordinary masonry. It frequently happens that a building is in first-class condition while its supports have disintegrated or collapsed.

The following situation is to be found on many coun-

used, the mixing methods and the care necessary to obtain the best results.

Concrete—a manufactured stone—is made by mixing together Portland cement, sand and stone (or gravel). Various proportions of each are used, depending upon the use to which the concrete is put. About half an hour after mixing these materials together, the mass begins to stiffen, until, in from half-a-day to a day, it becomes so hard that you cannot dent it with the hand. By a month the mass is hard, like stone—indeed, harder than most stones.

It is important that your stock of cement be kept in a dry place. Once wet, it becomes hard and lumpy, and in such condition is useless. If, however, the lumps are caused by pressure in the store-house the cement may be used with safety. Never, under any circumstance, keep cement on the bare ground, or pile it directly against the outside walls of buildings.

Do not use very fine sand. If there is a large quantity of fine sand handy, obtain a coarse sand and mix the two sands together in equal parts; this mixture is as good as



TROLLEY POLE AND LIGHTING STANDARD OF CONCRETE.

CONCRETE SAND BOX FOR GOLF

CONCRETE INLET-EASY TO DRAIN.

try places: A comfortable and well-built house with substantial barns and outbuildings. Between these buildings run the roads or walks used many times each day, but hundreds are simply thoroughfares of mud during frequent periods but especially in the spring, when the frost is coming out. They certainly are a false and discordant note in an otherwise attractive environment.

Nothing gives more trouble and injures the appearance of property so greatly as sagging gates and fences caused by rotten gates and corner posts.

Terraces too steep will not stay sodded and frequently cause endless trouble and spoil the general appearance of an otherwise fine lawn.

There is nothing that pleases the appetite so much as delicacies out of season. As for vegetables, they are not costly luxuries and are within the means of any one who will take the time to build a hot-bed or cold frame.

In a series of articles to appear in these columns it is the purpose to briefly describe different methods of concrete construction without the aid of expert mechanics, as they apply to its use on country estates and suburban home grounds, discussing, in this number, the material coarse sand alone. Sometimes fine sand must be used, because no other can be obtained; but in such an event an additional amount of cement must be used—sometimes as much as double the amount ordinarily required. For example, in such a case, instead of using a concrete, 1 part cement, 2 parts sand, and 4 parts stone, use a concrete, 1 part cement, 1 part sand, and 2 parts stone. Besides being coarse, the sand should be clean, i. e., free from vegetable matter. "But," you say, "how shall I tell whether the sand is what you call clean?" The presence of dirt in the sand is easily ascertained by rubbing a little in the palm of the hand. If a little is emptied into a pail of water, the presence of dirt will be shown by the discoloration of the water.

Stone or gravel is known as the "coarse aggregate" of concrete. Great care should be used in its selection. The pebbles should be closely inspected to see that there is no clay on their surface. A layer of such clay prevents the "binding" of the cement. If necessary stone or gravel may be washed in the same way as above described for sand. Indeed, it is more easily done than sand, as the water flows through the larger voids in the gravel more

readily than through the voids in the sand. Dust may be left in the crushed stone without fear of its interfering with the strength of the cement, but care should be taken to see that such dust is distributed evenly through the whole mass, and when dust is found in stone, slightly less sand should be used than ordinarily.

As to the size of stone or gravel, this must be determined by the form of construction contemplated. The best results are obtained by the use of a mixture of sizes graded from small to large. By this means the space or voids between the stones or pebbles are reduced and a more compact concrete is obtained. Moreover, this method makes it possible to get along with less sand and less cement.

Water for concrete should be clean and free from strong acids and alkalies. If you are at all in doubt about the purity of the water that you contemplate using, it would be well to make up a block of concrete as a test, and see whether the cement "sets" properly.

As above explained, concrete is composed of a certain amount of cement, a larger amount of sand, and a still larger amount of stone (or gravel). To determine how much of each of these materials to use, we must first consider the type of work we wish to undertake.

There are three kinds of mixtures, in general, in con-

crete work:

1. Very wet mixture.—Concrete wet enough to be mushy and run off the shovel when handling; used for thin walls or for thin sections, etc.

2. Medium mixture.—Concrete just wet enough to make it jelly-like; used for foundations, floors, etc. To better describe this mixture it may be said that a man should sink ankle deep if he were to step on top of the pile

3. Dry mixture.—Concrete like damp earth, used for foundations, etc., where it is important to have the con-

crete "set up" as quickly as possible.

The difference between the mixtures is, that the dryer the mixture the quicker will the concrete "set up"—but in the long run, when carefully mixed and "placed," the results from any of the above mixtures will be identical. It may be said, however, that a dry mixture is the harder to handle, must be protected with greater care from the sun or from drying too quickly; and lastly, is likely—unless used by most experienced hands—to show voids or stone pockets in the face of the work when the "forms" are removed. The less the voids in the stone or gravel, the greater will be the volume of the concrete.

No time should elapse between the "mixing" and the "placing." Directions for placing must of necessity be general, the important thing to remember is, that the

materials should not separate in placing.

In order to obtain a smooth face on the concrete, the mixture should be carefully "spaded" immediately after "placing"—on the side next to the form where the finished concrete will be exposed to view. By "Spading" is meant the working of a spade or beveled board between the concrete and the side of the form, moving it to and fro, and up and down. This forces the large stones away from the boarding, or form, and brings a coating of mortar next thereto, thus making the face of the work present an even, smooth appearance.

Green concrete should not be exposed to the sun until after it has been allowed to set for five or six days. Each day during that period the concrete should be wet down by sprinkling water on it, both in the morning and afternoon. This is done so that the concrete on the outside will not dry out much faster than the concrete in the center of the mass, and should be carried out carefully, especially during the hot summer months. Old canvas, sheeting, burlap, etc., placed so as to hang an inch or so

away from the face of the concrete will do very well as a protection. Wet this, as well as the concrete. Often the concrete forms can be left in place a week or ten days; this protects the concrete during the setting-up period and the above precautions are then unnecessary.

It may be well, in summing up, to emphasize the following points: 1. The materials must be perfectly clean.

2. The mixing must be in proportions carefully determined. 3. The mixture must be used while absolutely fresh. Good results cannot be obtained unless you use a good cement, nor will the work be at its best unless care is taken in the selection of clean sand and clean stone.

Among the uninitiated, there is an all too prevalent idea that anything is good enough for the making of concrete. Some will tell you that sawdust, shavings, mud, clay, etc., will do to complete the mixture, but the absurdity of this notion will very soon become evident to anyone who neglects the precautions which have been above pointed out

(To be continued.)

## DOMESTICATING THE MALLARD DUCK.

By L. P. JINSEN, MISSOURI.

Perhaps one of the most interesting sights to be witnessed, at any time, at Mr. August A. Busch's Grant's farm, near St. Louis, Mo., is the large number of mallard ducks.

Several years ago a few domesticated birds were secured, and the flock now numbers several hundred. It is a beautiful sight to behold when several of them take wing and circle over the property, eventually alighting on one or the other of the watercourses or lakes on the place.

At present the female may be found on stumps of old trees, or in the underbrush near the water, hatching her brood of youngsters. Many of them are also to be seen with their brood of little ducklings swimming on the water, busily devouring any insect that may come within their reach. These little ducklings are very interesting to observe, as they are very active and rapid in their movements, darting in all directions as quick as a flash, yet remaining close to the mother bird.

The nesting females are so tame that you may almost step on them before they attempt to leave the nest, and in most cases, they permit you to touch them with your hand.

They are regularly fed with wheat and other grain, and remain on the place all year. They require very little care and protection. They are never pent up, and seldom take advantage of the house put up for their protection.

The mallard duck seems to create confidence among other species of wild ducks, which have become regular visitors to the place, and permit you to approach very close to them before they alight.

The accompanying illustration shows a small group of them in their favorite element.

(See illustration, page 319.)

OUR QUERIES AND ANSWERS column is omitted from this number due to lack of space. It will appear in the August number. Have you any inquiries to make?

THE

## GARDENERS' CHRONICLE

OF AMERICA.

Published by

## THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Foreign, \$2.00

Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

Published on the 10th of each month. Advertising forms close on the 1st preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editorial matter, hould be addressed to M. C. Ebel, Editor, Madison, N. J.

## OFFICIAL ORGAN OF

## NATIONAL ASSOCIATION OF GARDENERS

President. Unce-President, Treasure W. S. RENNIE, Ross, Cal. J. W. EVERITT, Glen Cove, N. Y. JAMES STUART, Mamaroneck, N. Y. Secretary, MARTIN C. EBEL, Madison, N. J.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; Win, Turner, Mendham, N. J.; Geo, W. Hess, Washington, D. C.; John H. Dedds, Wyncote, Pa.

DIRECTORS.

To serve until 1916 -Thomas W. Logan, Jenkintown, Pa.: John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Plttsburgh, Pa.; Alexander McPhelson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

## AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President, GUSTAVE X. AMRHYN, New Haven, Conn.

ROLAND W. COTTERILL, Seattle, Wash.

JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

Incl exacts, CHARLES HAIBLE, Newburgh, N. Y.

CARL W. FOHN, Colorado Springs, Colo. JOHN HENDERSON, Montreal, Canada. J. H. PROST,

Vol. XIX.

JULY, 1915.

No. 7.

In her book, The Well-Considered Garden, Mrs. Francis King devotes a chapter on The Question of the Gardener, extracts of which, through the courtesv of the author and her publisher are presented on page 311. She frankly acknowledges the lack of appreciation the average American manifests in the efforts of his gardener, and concedes that a good cook or a speeding chauffeur oftentimes receives greater consideration. Of course, Mrs. King refers to the gardener on the large estate, and not those employed on small home grounds. We agree with her that the compensation of the class she terms the Head Gardener should be at least one hundred dollars per month, with his cottage and privileges, while we realize that the compensation of what she terms a "working gardener" must be governed to a certain extent by their responsibilities. As for the manager or superintendent of the country estate, we fear that the owners of these establishments are not as thoughtful of them as they are of the heads of the departments of their business enterprises, for many of the latter with far less responsibilities than some of the

estate managers must assume, are comfortably enough situated through the recompense they receive to employ gardeners. Few vocations call for greater ability than that of the manager of a complete country estate. Ostensibly a gardener, he must have a knowledge of engineering, construction work, farming, cattle, forestry and much else that is demanded in estate management, besides executive ability and an ability to handle men. In many instances he is even provided with a banking account with which to finance the operation of the estate. And we know of gardeners who creditably fulfill such positions at figures well below the \$150 mark. We choose to ascribe such existing conditions, first, to the utter thoughtlessness on the part of the average owner of an estate of the value of the service his superintendent renders him as compared with the remuneration he receives for it; second, that many an estate owner takes no further interest in his establishment than to have it maintained as lavishly as that of his next door neighbor's for appearance sake, but continuously begrudges the expenditure involved in doing so. We firmly believe, however, that the gardener's effort is more appreciated in this country today than it ever has been and that he is gradually gaining the recognition due him. He is indebted to the author of The Well-Considered Garden for the attitude she assumed in his behalf in The Ouestion of the Gardener, and which undoubtedly will provoke considerable discussion on this subject.

The reports appearing in another column of flower shows held recently as business promoters by two progressive banks offer a suggestion that could profitably be adopted by other business institutions as a means of securing general publicity, and providing a method for securing some effective advertising on an economical basis, that could not be obtainable from other sources. We commend the holding of flower shows to our business friends who may be engaged in enterprises catering to the general public. They provide healthy and educational entertainment, and will bring patronage to any institution that will provide an interesting show. This applies more to the smaller cities than to our large metropolitan districts, although even in large cities a business institution that will properly exploit the holding of a flower show within its walls can draw large crowds to it.

#### THE FATHERLAND.

Where is the true man's fatherland? Is it where he by chance is born? Doth not the yearning spirit scorn in such scant borders to be spanned? Oh, yes! his fatherland must be As the blue heaven wide and tree!

Is it alone where freedom is, Where God is God and man is man. Doth he not claim a broader span For the soul's love of home than this? Oh, yes, his fatherland must be As the blue heaven wide and free!

Where'er a human heart doth wear Joy's myrtle wreath or sorrow's gyves. Where er a human spirit strives After a life more true and fair. There is the true man's birthplace grand His is a world-wide fatherland!

Where'er a single slave doth pine. Where'er one man may help another-Thank God for such a birthright, brother -That spot of earth is thine and mine! There is the true man's birthplace grand, His is a world-wide fatherland! James Russell Lowell

## NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

#### ASSOCIATION NOTES.

An executive meeting of the trustees and board of directors will be held on Wednesday, July 14, at the Hotel Martinique New York City, to complete the plans for the summer meeting to be held in San Francisco during the third week of August. and to act on several other important matters in the interest of the association, which are to be brought before the meeting.

The Co-operative Committee is anxious to begin an active cooperative campaign between the local horticultural societies early this fall. The committee was created for that purpose, but without the assistance of the local co-operative committees, which have been appointed by the various local societies to work in conjunction with the co-operative committee of the national association, the last named committee can accomplish little, for it is but an instrument, so to speak, of the local committees. The members of the national committee will welcome suggestions from any member of the association on the subject of producing a greater co-operation between all horticultural bodies. Communications should be addressed to the Co-operative Committee, in care of the secretary of the association.

The gardeners' national association has during the last three years gained considerable recognition as an influential factor in horticulture. In order to make it even a greater factor than it now is the organization must increase the strength of its membership so that its influence may be spread. To accomplish this every member should aim to introduce at least one new member into the association, and should strive to do so at once. so that when the next convention convenes we may be able to report a substantial gain in our membership roll,

The article on the "Question of the Gardener" by a prominent amateur, published on another page, should have the careful attention of every gardener interested in the future of his profession. Whether you will agree or not, with all the writer of it advances, is not paramount the issue for consideration is that it should be discussed at all from practically the gardener's standpoint by one wholly outside of the profession. The first shot has been fired; it is now up to the gardeners themselves to keep up a campaign of education to enlighten the uninitiated that there is a distinct difference between real gardeners and the class of so-called gardeners, many of whom are filling positions, which, if occupied by efficient men, would prove more creditable to the gardening profession, and give more satisfaction to the garden owner, who, while it may cost him more, would get his money's worth.

Duplicate bills are being sent to members who have not yet paid their 1915 dues, and to those who are more delinquent. By taking a life membership, which will cost you \$25, you are exempt from all dues and from the annoyance of having to remit once a year. Some members have already expressed their intention of taking out life membership before the end of the year. Life membership dues are deposited in a permanent fund

#### THE LAST CALL!

If you are going to accept the invitation of the American Association of Park Superintendents to join its members on their trip to San Francisco and return, you must decide now. Scretary Cotterill of the A. A. P. S., writes:

"If you miss this special train party you will regret it, as

it will be the last word in convenience of travel, and a trip through a scenic wonderland with stop-overs at cities which have progressed very rapidly in modern park development during recent years. There will also be entertainment free which ordinarily would amount to a hundred dollars of expense. Remember, members of kindred organizations are welcome to join this party and take advantage of these features."

The party departs from New York, Saturday forenoon, Aug. 7; Chicago, Sunday evening, Aug. 8. Arrives San Francisco, Aug. 16. Leaves San Francisco, Aug. 24; Los Angeles, Aug. 29. Arrives New York, Sept. 7.

Full particulars can be obtained by addressing your secretary, M. C. Ebel, Madison, N. J.

## Of Interest to Gardeners

A larger membership in the National Association of Gardeners will mean greater strength for the organization, and will spread its influence for the development of ornamental horticulture in America.

Your neighbor may not yet be a member. Why not secure his membership? He is only waiting to be asked.

## AMONG THE GARDENERS

The many friends of Herbert W. Clarke, of Manchester, will be sorry to learn that he is laid up with a broken leg.

A party of about one hundred will go from Boston to the Newport Sweet Pea Show, and will visit some of the leading private estates there on July 15,

Increased interest is being taken in rock gardens in Massachusetts and quite a number of estates are making a start in this branch of gardening.

William Roberts, late of Readville, Mass., returned to Great Britain some time ago and is now at the battle front with the Royal Welsh Fusiliers.

The Garden Committee of the Massachusetts Horticultural Society, visited the noted rose gardens of Miss S. B. Fay, Woods Hole, Mass., on June 24, and M. H. Walsh, who has charge, was able to show them a wonderful display of roses.

Boston is planning to hold two big shows in 1916 one either in March or May, and the other in November. Popular sentiment favors March in preference to the May exhibition.

George G. Milne, who recently returned from a visit to his home in Ireland, has secured the position of gardener at the Homestead Hotel, Hot Springs, Va.

George W. Hess, superintendent of the United States Botanic Gardens, Washington, D. C., will leave shortly for New Orleans, by steamer via New York, to become the guest in that city of Schatter Robert F. Bronssard.

Joseph Dexter has resigned his position as superintendent at Brooklake, the estate of Howard Cole, Madison, N. J. ≝ynamidonaes este east of a a a composition of the asternational and the composition of 
## Of Interest to Estate Owners

The National Association of Gardeners maintains a Service Bureau which is at the disposal of all who may require the services of efficient gardeners in their various capacities.

The association seeks the co-operation of estate owners in its efforts to secure opportunities for those engaged in the profession of gardening who are seeking to advance themselves. It makes no charge for services rendered. It endeavors to sup-ply men qualified to assume the responsibilities the position may call for.

Make your requirements known to

M. C. EBEL, Sec'y, National Association of Gardeners, Madison, N. J. 

# Gardeners Inspect "Homewood"

The pleasant relations that exist between some estate owners and their superintendents were manifested on Monday, June 21, when R. B. Ward, the genial owner of "Homewood," a charming country estate situated among the hills of Westchester County, at Wykagyl, New York (described in the last issue of the Chronicle), extended an invitation to some sixtyfive gardener friends of Nicholas Butterbach, his superintendent, to inspect a new French fruit garden that has recently been completed on the estate by Mr. Butterbach. The members of the party, traveling by various routes, journeyed to New Rochelle and were there met at the station by Mr. Butterbach. After many greetings by old acquaintances, the party boarded a special car that Mr. Ward had chartered for the occasion and proceeded to "Homewood," where, after an inspection of the grounds, they became his guests at luncheon.

After lunch Arthur Herrington brought the gathering to order and called on Mr. Butterbach whom, he stated, some knew as such, while others knew him more familiarly as Nicholas Butterbach; "but," he remarked, "there are some among us who have been intimately associated with him so long that we know him only as 'Old Nick.'" He referred to Mr. Butterbach's long and brilliant career as a gardener and one who can be accepted as an authority on almost any subject pertaining to horticulture.

Mr. Butterbach, in responding, was found in a reminiscent mood and related some of his early experiences as a gardener. On behalf of Mr. Ward, Mr. Butterbach extended a cordial welcome to the visiting gardeners and expressed for Mr. Ward, who had planned to receive them on the estate, his regrets for being unable to be present, as he was unexpectedly called away earlier in the day. Reverting to the subject on which he desired to speak, Mr. Butterbach said that he received his early training and experience in

dwarf fruit tree culture under the watchful eye of a student of the originator of the dwarf fruit trees in France. He explained the various methods of cultivation and the necessity of proper pruning and pinching (which will be reported in more detail in the August issue of the Chronicle). The party then withdrew to the French fruit garden, where Mr. Butterbach gave some practical demonstrations of summer pruning as a means of developing fruit spurs and bringing trees into bearing. Many questions were asked and ably answered by Mr. Butterbach, which left no doubt in the minds of the visitors that he is a master of his art.

The lecture over, other prominent features of the place were inspected, among which may be mentioned the extensive herbaceous garden, adjoining the fruit garden. The sunken garden containing many varieties of old-fashioned flowers, was the source of much interest. The rose garden, which contains many of the finest varieties of out-door roses, was next inspected. The somewhat extensive range of green houses also proved of more than passing interest.

At this stage of the tour of inspection the arrival of the photographer was announced and the visitors repaired to the stretch of lawn in front of the mansion to be photographed.

The next point of interest to be inspected was the farm part of the estate, which is well equipped with modern farm buildings, but as the party was about to proceed there it was found that the time had passed so rapidly that many had to leave at once in order to make their train to get home the same evening. Those who had the time to spare, visited the farm buildings and found much to interest them, after which those remaining expressed themselves freely in appreciation of all they had seen, heard and enjoyed at Homewood.

On the motion of John W. Everitt, president of the National Association of Gardeners, a hearty vote of thanks was accorded to Mr. Ward for his kind invitation and hospitality, and to Mr. Butterbach for his practical talk on fruit growing and other courtesies extended the party while visiting the estate.



GATHERING OF GARDENERS AT HOMEWOOD, THE FSTATE OF R B WARD, WYKAGYI, NEW YORK,

# AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. X. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

### ASSOCIATION NOTES.

The Convention Committee met in San Francisco on June 14 and 15, with Secretary R. W. Cotterill, John McLaren and Daniel MacRorie present, every detail of arrangements and program being taken care of in accordance with summary as outlined elsewhere in this department. The Board of Park Directors of Oakland will co-operate with San Francisco in making the convention a success and those who attend will have no regrets, as it will undoubtedly be a banner convention and the Exposition, San Francisco and the entire Pacific Coast will be a revelation to those who are fortuate enough to see them.

The sessions of the convention will be held in the new municipal Civic Auditorium, a magnificent structure, which is a part of San Francisco's civic center, and is directly across from the new city hall, the finest in America. Our convention hall will be on the same floor as the hall and exhibit of the S. A. F., so that members can conveniently go from one to the other, as both will be in session at the same time.

In the matter of selecting a hotel, the committee had in mind that the convention trip is going to be a long and expensive one for many of our members. Too often the mistake has been made of having as headquarters the fanciest hotel in the city, with prices which were a burden, and the secretary has heard many complaints on this score, hence decided to select a modest hotel which would meet our requirements.

San Francisco is a tourist city, this is Exposition year and the big hotels have a scale of prices which will put a crimp in the purses of tourists who go to the best known hostelries. The committee decided upon the Stewart Hotel as headquarters and reservations have been made for one hundred persons for our dates. The Stewart is a modern hotel of 300 rooms, very conveniently located just off Union Square and across the street from the St. Francis Hotel, which will be the headquarters of the S. A. F. The rates at the Stewart for our party will be on the European plan, as follows: Single room (detached bath). one person, \$2; two persons, \$3 per day. Room with private bath, one person, \$2.50; two persons, \$4 per day. Double room, tiwn beds, with private bath, \$4.50 per day. The hotel has an excellent cafe with modest prices and there are numerous cafes within a few doors. The hotel is in the heart of the theatre and hotel district. Write your reservation direct to the Stewart Hotel Co., stating just what you want, when you will arrive, and be sure you state that you are with the Park Superintendents' party, as the Stewart is a very popular hotel and is usually

New Orleans is going to make a strong bid for the 1916 convention and will have representatives on the ground to work for it. The secretary has on hand invitations from the mayor, governor and various commercial organizations, so St. Louis had better look to its laurels.

Secretary Cotterill has seemed two program teatures which will be a great card for our convention. Samuel Hill, millionaire good roads advocate, president of the Pacific Highway Association and past president of the American Good Roads (ongress, will present his famous lecture on "Good Roads," illustrated with magnificent colored slides of roads and drives all over the world. Mr. Hill has made twelve trips to Europe and has a wonderful collection of views of road construction. Good roads are his hobby and he has spent several hundred thousand dollars of his own money in putting in experimental sections of different types of roadways.

E. B. DeGroot, formerly of Chicago, now of San Francisco, probably the most eminent playground man in this country, will also be present at our convention and deliver an address. Quite a number of our members will have papers and addresses, so that at this session we will probably have more real instructive features than at several previous sessions.

The social features at this session will also be all that anyone could ask for, but will not be indulged in until the business is The exposition is a marvel, and San Francisco, Oakland and the other bay cities will offer sight-seeing trips that will never be forgotten.

### PRELIMINARY PROGRAM ANNOUNCEMENT.

Seventeenth Annual Convention, American Association of Park Superintendents, San Francisco, Cal., August 18-20, 1915.

Headquarters, Stewart Hotel, Union Square,

Convention sessions will be held at the Civic Auditorium. Special train party will arrive at San Francisco, Monday evening. August 16.

### TUESDAY, AUGUST 17.

Opening of convention of Society of American Florists and meeting of National Association of Gardeners. Executive Committee meeting of A. A. of P. S. Evening: Informal reception and dance at St. Francis Hotel.

# WEDNESDAY, AUGUST 18.

Convention Sessions: Morning, afternoon and evening, at Civic Auditorium.

Morning: Opening ceremonies; address of welcome by Mayor James Rolph; response by President G. X. Amrylin; admission of new members; report of oflicers; appointment of committees; introduction of resolutions, amendments to by-laws, etc.

Afternoon: Reports of committees; election of officers; new

and unfinished business; question box.

Evening: Addresses, papers, stereopticon lectures, closing ceremonies.

Ladies of the party will be given an automobile tour in after-

### THURSDAY, AUGUST 19.

Steamer trip around San Francisco Bay in forenoon; luncheon at Oakland, followed by auto tour of Oakland, Alameda and Berkley, as guests of the Board of Park Directors of Oakland; return by steamer to San Francisco, at 6 p. m.

Evening: Stag smoker for gentlemen of party at Elks (lub; theatre party for the ladies.

# FRIDAY, AUGUST 20.

All-day auto tour of San Francisco parks, boulevards and playgrounds. Panama-Pacific Exposition grounds and the picturesque rural districts of the San Francisco Peninsula; evening at exposition grounds amusement features on "The Zone."

# SATURDAY TILL TUESDAY, AUGUST 21 23.

Free for inspection of exposition, general sight-seeing and side trips. Party leaves for Los Angeles and San Diego at 8 p. m. Tuesday, August 24.

### DAMAGE DUE TO WEEDS.

While there are various definitions, a weed may be said to be a wild plant that has a habit of intruding where it is not wanted. Some weeds produce immense quantities of seeds. Some mature seeds in a very short time. Some have seeds difficult to separate from crop seeds. Some have roots or rootstalks that live for a number of years. They persist because well equipped by nature to hold their own. Weeds, however, are not always useless. Sometimes they are the principal means by which organic matter is restored to the soil, and, generally speaking, a soil is productive in proportion to the quantity of organic matter it contains. Turning farm land out to rest merely means that weeds are permitted to grow on it for several years. Weeds are also useful at times in preventing soil erosion, especially during the winter months, and serve a useful purpose in collecting and holding the nitrates and other soluble salts during periods when crops are not being grown, thus preventing these valuable nutrients from being washed out of the soil. Ordinarily, however, all these benefits may be realized through proper rotations, in which case it is a mistake to allow weeds to grow

The full reason why weeds reduce yields is not definitely known. It is well recognized that weeds deprive crops of moisture, plant food, and sunlight, and by these means cause decreased yields. Experiments have shown, however, that even where there is a supply of moisture and plant food sufficient for the needs of both weeds and the crop, weeds still exert a detrimental effect. This may be due in part to the weed roots giving off substances which are poisonous to crops. The fact that weeds do harm in more ways than has been supposed is all the more reason why the farmer should make strenuous efforts to subdue these invaders. Land that should produce 60 bushels of corn may yield no more than 20 bushels if weeds are not kept down by adequate

# Our Native Birds' Protectorate

Under the Direction of the Committees on Bird Protection.

National Association of Gardeners, L. H. Jensen, St. Louis, Mo., Chairman.

American Association of Park Superintendents, Herman Merkel, New York, Chairman.

# WHY A "CITY ORNITHOLOGIST?"

This question is undoubtedly being asked by some of the readers of the Gardeners' Chronicle, after reading the report of the committee on bird protection, published in the May issue, and a statement of the thoughts that induced the writer to add this paragraph to the report may lead to some valuable discussions and comments by Chronicle readers.

For sentimental reasons alone, I think, that, any large city could afford to pay for the protection of our native birds. To have the public parks and tree lined city streets abound with birds of song and color; to have the places now occupied by the European sparrow regained by our native feathered friends, would be worth many times the cost of the office of a city ornithologist.

American cities, as a rule, are not particularly sentimental, but require to be shown in a tangible way, that the result will be worth the cost, as measured by the standard of dollars.

We know, that the economic value of birds consists principally in their relentless and untiring warfare against insects injurious to vegetation. If the number of insectivorous birds is very greatly decreased, man must pay for the work of checking the destruction of vegetation by insects. The protection of our native birds would reduce, and in many cases entirely prevent this work.

Most articles relating to economic bird protection have considered the country districts, and their crops of grain and fruit, which of course must be protected at any cost, but, not so often is consideration taken of the value of protecting the city vegetation.

Within recent years, we are beginning to realize, that the trees and shrubs of our parks and streets are of great economic value to the ever increasing number of people who must live in cities.

In the country the enemies of birds are not as many as in the city. The English sparrow is not so common along the woody highways of the country, and the stray cat, one of the worst enemies of our birds, not so much in evidence as in the city.

At night large hordes of injurious insects are drawn to the bright lights of the city, there to perform their work of destruction, on the very form of vegetation which makes the living in cities possible.

Owing to the large number of insects attracted by the lights, insectivorous birds would come to the cities in large numbers, provided they were given proper protection. Hence the need of a city ornithologist.

A city ornithologist should be one who thoroughly knows birds and their habits. He should look after the distribution and placing of bird boxes and the distribution of food for the birds, at such times as feeding would seem essential. He should instruct the children, at school and at the playground, on the importance of the birds to the city and its inhabitants. He should protect the birds from their enemies, and work out a bird census of the city, which would show the annual decrease or increase of birds, etc.

We are confident that the effort for the protection

of birds in cities, if systematically carried out, would be of untold benefit to the city population of this country, and we wish to enlist the aid and support of every reader of the Gardeners' Chronicle, of every lover of birds, of every live civic organization, of every park board, and of every one interested in the betterment of city conditions.

L. P. Jensen, Chairman.

### BIRDS OF FIELD AND ORCHARD.

Birds are the gardener's best friends. This has been said many times before, in many ways, by many writers and observers. But it is one of the things that can bear repetition, and if anything new and compelling can be said, the repetition will be well worthy of attention. Besides, very, very few understand the extent of the birds' help in raising each year's crops.

One who begrudges birds the little fruit which they may eat in the fruit season is apt to forget that the fruit season is very short, while these helpers are working for him the year round. In the winter the woodpeckers, nuthatches, and brown creepers, are literally climbing up his trees-gathering insect larvae and eggs from trunk and limbs, bark creases and knot holes. In the spring, when leaf and flower buds are bursting, when all foliage is tender, and insect larvae begin to devour, warblers, greenlets, and kinglets come from the South by hundreds to search every delicate crevice and cranny of leaf, bud, and blossom; and were it not for these mighty pigmy hunters, our trees, fruit, and vegetables would literally be at the mercy of insects. Then, all summer long there remain with us bluebirds, wrens, robins, grosbeaks, kingbirds, flickers, orioles, thrushes, catbirds, all of which, while incidentally building nests and rearing young, spend most of their time protecting our trees, fruit and vegetables.

The greater portion of the food of these birds consists of noxious insects; and when a bird is not nesting or singing or sleeping it is usually searching for food.

It should be noted, also, that most birds feed their young entirely upon insects; and the open mouth of the hungry bird is proverbial. Most of our common birds raise two broods a year. Think of the number of insects necessary to feed from twelve to sixteen young wrens, or eight or ten youg robins! Young birds grow so rapidly that the amount of food they eat is simply astounding.

If one thus attracts birds to his garden he will find that they soon learn to be on hand when any plowing, spading, hoeing, raking or weeding is going on; for it is when the soil is disturbed that worms and insects are brought to the surface; and in approaching near to the worker to secure them, the birds, especially robins, become almost as tame and bold as chickens.

Black-billed cuckoos, kingbirds, orioles, are all very active in destroying beetles, grasshoppers, spiders, weevils, caterpillars, ants and click-beetles, the larvae of the latter being among the most destructive insects known. The grosbeak is the particular enemy of the potato beetle, while the robin, the house wren, the bluebird and cathird are all shown to subsist mostly on animal matter, the greater portion of which consists of insects.—Our Dumb Animals.

### PITTSBURGH HORTICULTURAL NOTES.

Mr. and Mrs. Benjamin Franklin Jones, Jr., entertained the members of the Garden Club of Allegheny county on the ninth at Fairacres, Sewickley Heights, their Summer home.

Mrs. William Thaw, Jr., whose country place, "As You Like It," is also on Sewickley Heights, recently entertained the club to hear Mr. Strassburger, of Philadelphia, talk on "Rock Gardens; the Methods of Making and the Flowers to Grow." Later the members accompanied Mr. Strassburger to Mrs. Thaw's rock garden, which he had just completed.

On August 14 the club will visit "Rachelwood Farm" (which really comprises a chain of nine farms), the country estate of Mr. and Mrs. James R. Mellon, in the heart of the Allegheny Mountains.

Mrs. Francis H. Denny is president of the Garden Club, which was organized in November, 1914, the other officers and Board of Directors including Mrs. James D. Hailman, first vice-president; Mrs. W. Henry R. Hilliard, second vice-president; Miss Alice Robinson, treasurer. Directors: Mrs. Harvey Childs, Jr., Mrs. Francis H. Denny, Mrs. James D. Hailman, Mrs. Benjamin F. Jones, Jr., Mrs. Finley Hall Lloyd, Miss Alice Robinson, Mrs. J. Stuart Brown, Mrs. George B. Gordon, Mrs. W. Henry R. Hilliard, Mrs. William Larimer Jones, Mrs. Richard B. Mellon, Mrs. William H. Mercur, Miss Priscilla S. Guthrie, secretary.

Neil McCallum, who has the distinction of being president of both the Florists' Club of Pittsburgh and the Botanical Society of Western Pennsylvania, and superintendent of the West End Park, is growing some unusual plants. Just now he is trying out an Agaponthus (African blue lily), and has three splendid specimens of Francoa ramosa saxifraga, from the Andes, the only ones in Pittsburgh; several of the Australian Melalenca Argenteum and varieties of the Eucalyptus Citriodosa, Globulus and Ficifolia. The park is a charming reproduction of an English garden. Mr. McCallum is a native of London, although of Scottish blood.

An interesting recent event in Schenley Park was the annual tree planting and outing of the Congress of Women's Clubs of Western Pennsylvania, held in connection with the annual outing for the blind. John M. Phillips, "the bird and tree man," of Carnick, who planted 2,000 mulberry trees in that suburb this year, was among those honored in naming.

About the same time the New Era Club dedicated an apple grove in Schenley Park to its past presidents and prominent men, including Superintendent of Parks George W. Burke.

It is reported that Andrew W. Mellon is about to construct a large greenhouse on his Squirrel Hill estate, Pittsburgh, Pa.

J. Hart Gibben, president of the Farmers National Bank, is also to have a new greenhouse on his grounds, Morewood Heights, Pittsburgh.

Send your subscription to begin with July number to
THE CHRONICLE PRESS, Inc., Publishers
The Gardeners' Chronicle of America
286 Fifth Avenue, New York

American de la factor en la falla de la contra del contra de la contra del la contra de

# BROOKLYN SOCIETY FIELD MEETING.

A delegation from the Brooklyn Institute of Arts and Sciences held a field meeting at the Nurseries of Bobbink & Atkins, Rutherford, N. J., on Saturday, June 26.

Besides being controllers of trees and plants, it seems that Bobbink & Atkins also have the power to order the weather—for it was ideal. The refreshing shower in the morning added greatly to the condition of the flowers.

The members of the Institute were pleasantly surprised at the wonderful Rose Garden which portrays truthfully the character of over 300 varieties of roses, new and old. The Herbaceous collection was also a center of attraction, and, all in all, the visit was greatly enjoyed and a success in every way.

# GRAND NATIONAL FLOWER SHOW, PANA-MA-PACIFIC INTERNATIONAL EX-POSITION, OCTOBER 21-26.

The Grand National Fall Flower Show is scheduled to last five days from October 21 to October 26, and will take place at the Palace of Horticulture in the Exposition Grounds under the auspices of the Pacific Coast Horticultural Society in conjunction with the Department of Horticulture. Special prizes for chrysanthemums in a contest open to all will include the Chrysanthemum Society of America's silver cup. Hitchings & Co.'s silver cup, the Wells-Totty prizes, the Henry A. Dreer prize, the A. N. Pierson, Inc., prize, the Elmer D. Smith & Co. prize, the National Association of Gardeners prize, the H. F. Mitchell's prize, the H. W. Buckbee silver cup and the Society of American Florists and Ornamental Horticulturists prizes.

In a Class A competition there will be medal awards as well as money awards ranging from \$3 to \$15—24 awards being made in all. This contest is open to all.

The Class B contest, open to non-commercial growers only, will include six money awards.

Class C, open to all, will be a contest for the finest Chrysanthemum plants, and consists of four different conditions, each of which will be awarded a prize, either a silver cup, a medal or a money prize.

Class D, cut flowers, money prizes and medals as awards will include displays of roses, carnations, lillies, herbaceus perennials, annuals, dahlias, and begonias.

Class E, open to all, with numerous prizes, monetary and otherwise, will be devoted to orchids of different varieties, palms, and other foliage and flowering plants.

Class G, open to all, best collection of vegetables.

Money prizes will be awarded.

Class H includes special features such as contests for the best table decoration with different flowers as features on different days, best vases of Chrysantheniums, best arranged baskets of flowering and foliage plants, of orchids and foliage, most artistic and original floral design, most artistic corsage and bridal bouquet, and best arranged basket of cut flowers.

Those in charge of the show will be H. Plath, manager, John R. Fotheringham, assistant manager, T. Taylor, secretary. The exhibition committee includes Daniel McRorie, T. Taylor, F. Pelicano, E. James, Angelo J. Rossi, D. Raymond, W. A. Hofinghof, Donald McLaren, Wm. Kettlewell, Wm. Munro, John R. Fotheringham, P. Ellings, and M. Poss. For full particulars and application blanks write H. Plath, 210 Lawrence avenue. San Francisco.



MT SHASTA, FROM THE CRAGS, CASTLE ROCK, CALIFORNIA.

# The South Path From The Pacific Coast

Practically everyone who plans to visit the California expositions this year will wish to extend his trip to include the many natural wonders of the West, as well as glimpses of the other Pacific Coast States. Instead of first seeing the expositions and then making side trips to other Western points, often retracing one's route, an excellent plan is to start from Portland, traveling down the coast through Washington and Oregon and through the wonderful valleys of California. Visits to the expositions may be followed by enchanting trips through Arizona and the Southwest, concluding the journey by steamship from New Orleans. To arrange your journey in this way, over the Southern Pacific route, is

to weld it into a well-balanced whole, a tour which will more than meet your liveliest antici-

pations.

The trip from Portland to San Francisco, by the "Shasta Limited," or by one of the other three trains on the Shasta route, is a success -a of never-to-be-forgotten sights. You pass through the Willamette Valley, whose great agricultural possibilities the thrifty Pennsylvania Dutch were the first to discover many years ago. You climb to the summit of the Siskiyous 4,125 feet above sea level over a

series of horseshoe curves, where the track winds around the mountain one level above another and one tunnel above another tunnel.

AROUND MOUNT SHASTA.

Mount Shasta's snow covered crest, 14,380 feet above sea level, soon appears, to remain in sight for four hours or more. As we approach nearer and wind about its base, it is now on one side of the train and then on the other, affording the nearest car window view of any California mountains of such magnitude or beauty.

Here the Sacramento River has its source, flowing 350 miles due south, through the broad Sacramento Valley. From source to mouth, our train is to follow its course,

through timber and canyon, across steel bridges or clinging to the mountain side, coming out finally to run for two hundred miles or more through the bottom lands themselves.

On our way, we may have been fortunate enough to have the novel experience of a car window view of an active volcano, for Mount Lassen at the head of the Sacramento Valley awoke on May 30, 1914, from 200 years of sleep, and now it can be seen some 40 miles away from the railroad, emitting large volumes of smoke and ashes



ONE OF THE STURDY STEAMERS OF THE SOUTHERN PACIFIC FLEET.

TOWER OF JEWELS, PANAMA PACIFIC INTERNATIONAL EXPOSITION.

MIDWAY POINT, NEAR DEL MONTE,



THE FAMOUS ROOSEVELT DAM, ARIZONA.

MATIONAL PARK, CALIFORNIA.

V PROTORISOUR OF D CLANIATION HOME, NEW ORLEANS.

and rock in eruptions as violent as they are sudden.

### THE EXPOSITIONS.

If you would visit the Yosemite National Park, or the city which the Spaniards loved to call the city of the angels, Los Angeles, or the Arizona National Reserve, or historic old San Antonio, or quaint old New Orleans, the Southern Pacific Sunset Route is the logical one for you to follow.

There is little need for one to speak of the two expositions. There is scarcely a person who has not read of the exhibits that come from all over the world and the magnificent buildings in which they are housed. Fifty million dollars, that at San Francisco has cost, and its eleven great palaces form the central setting of a beautiful picture, on the shores of a land-locked harbor, rimmed around by mountains, with a turquoise California sky over all. The exposition at San Diego was never meant to be a rival of the San Francisco one, but it epitomizes the spirit of California, an atmosphere of Spain with the life and activity of modern California. The buildings, the orange groves, the tea orchards, the garb of the attendants will appeal to the aesthetic for beauty and unique originality.

Down the famous coast route from Los Angeles to San Francisco Bay is now a constant succession of delights. In these few hundred miles nature is seen in her most imaginative mood. Here and there white missions stand as silent witnesses to the faith of the Spanish pioneers, adding the romantic touch of antiquity, and sharply contrasting with palatial hotels that speak the last word in modern luxury and comfort.

But perhaps you will choose for your route central California—down the beautiful valley of the San Joaquin River. By taking this route you may spend a day among the gigantic trees of the Mariposa Grove and visit the majestic cliffs and shimmering falls of the Yosemite.

### LOS ANGELES.

The tourist center of Southern California is Los Angeles, 484 miles south of San Francisco. It is no hard task to discover why tourists flock here. The climate is renowned the world over, for Los Angeles has 300 clear



THE SUNSET LIMITED, RUNNING BETWEEN SAN FRANCISCO AND NEW ORLEANS.

days in the year. The scenic region about Los Augeles is one of endless charm.

When you are bound east from Los Angeles, there is a choice visit through the heart of Arizona, which the Southern Pacific has recently made accessible, a journey through the Arizona National Reserve. The main line of the Southern Pacific is left at Maricopa for Phoenix on the Arizona Eastern Railroad, where an automobile is taken for the trip to Globe. The route lies through the

### SALT RIVER VALLEY.

where irrigation has made possible a luxuriant growth of oranges, cotton and dates. The road winds through canyons and among cliffs to a height of 3,470 feet, then leads down to Roosevelt Dam, which is in a gorge at the upper end of Salt River Canyon. The dam has a maximum height of 280 feet, and when the reservoir is full, it will form a vast lake backing up seven miles in the Tonto River and 27 miles in the Salt River. Four and one-half miles east of the dam, a detour of a mile and a climb of 20 minutes bring you to one of the ancient cliff dwellings, and three miles further away, a journey by trail brings one to an even more extensive group. The journey from the dam to Globe is through a country of scenic features, with huge mountains, and from Globe to Bowie, where the Southern Pacific main line is reached again, the way lies through the Gila Valley with its alfalfa and grain fields, its frequent orchards and its tree-lined irrigation canals.

San Antonio, Texas, is sure to attract those who love to revel in history. Many of the old-time adobes are still standing, recalling the days when this was the capital of the Spanish province of Texas.

Our journey over the Southern Pacific rails ends at New Orleans. From here run the steamers of the Southern Pacific to New York City, affording 100 golden hours at sea. But most travelers will wish to linger for a brief time, at least, in New Orleans. This is the unique city where the romantic past and aggressive present meet face to face. As one walks the streets of the bustling city, one catches glimpses of side streets with quaint old buildings that seem to have been taken bodily from some venerable European city. The architecture is of ancient France and Spain. In the "Vieux Carre," or old city, this impression is so strong that one forgets for the time that he is in America. Then there are parks of famous beauty, buildings of keen historic interest, and the wharfs and levees where the countless bales of cotton, sugar barrels and bags of rice tell of a modern New Orleans, which is the outlet for the greatest agricultural region in the world. This city, where past and present meet, and a five days' rest on a luxurious Southern Pacific steamship to New York is a fitting climax to a most delightful journey.—.4dv.

# **NATIONAL ASSOCIATIONS**

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st., N. Y.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Dahlia Society. Joseph J. Lane, secretary, 11 West 32d st., N. Y.

American Gladiolus Society. L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 40 West 28th st., N. Y.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

Women's National Agricultural and Horticultural Association.

Miss Margaret Jackson, secretary, Englewood, N. J.

# LOCAL SOCIETIES

Bernardsville Horticultural Society.

W. G. Carter, secretary, Bernardsville, N. J. First Monday every month. Horticultural Hall, 7:30 p. m., Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass

Third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Cleveland Florists' Club.

Frank A. Friedley, secretary, 95 Shaw avenue, East Cleveland, Ohio. Second Monday every month, Hollenden Hotel, Cleveland, Ohio.

Cincinnati Florists' Society. Alex. Ostendorp, secretary, Cincinnati, Ohio. Second Wednesday every month, Jabez Elliott Flower Market.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Detroit Florists' Club. R. H. Wells, secretary, 827 Canfield avenue, Detroit, Mich.

Third Monday every month, Bemb Floral

Dobbs Ferry Gardeners' Association. B. Harms, secretary, Dobbs Ferry, N. Y. Last Saturday every month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls, N. Y. Second Wednesday every month except

May and June, Poughkeepsie, N. Y.

Elberon Horticultural Society.

George Masson, secretary, Oakhurst, N. J. First Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Essex County Florists' Club.

John Crossley, secretary, 37 Belleville avenue, Newark, N. J.
Third Thursday every month, Kreuger

Auditorium.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass. Second Tuesday every month.

Florists' and Gardeners' Club of Rhode Island.

William E. Chapell, secretary, 333 Branch avenue, Providence, R. I.

Fourth Monday each month, Swartz Hall.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Gwynn Falls Park, Sta. F. Baltimore, Md.

Second and fourth Monday every month, Florist Exchange Hall.

Gardeners and Florists of Ontario.

Geo. Douglas, secretary, 189 Merton street, Toronto, Canada.

Third Tuesday every month, St. George's

The Horticultural Society of New York.

Geo. V. Nash, secretary, Bronx Park, New York City.

Monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Lake Geneva Gardeners' and Foremen's Association.

Raymond Niles, secretary, Lake Geneva, Wis.

First and third Tuesday every month. Oct. to April: first Tuesday every month. May to Sept., Horticultural Hall.

Lenox Horticultural Society. G. H. Instone, secretary, Lenox, Mass. First Saturday every month.

Los Angeles County Horticultural Society. Hal. S. Kruckeberg, secretary, Los Angeles, Cal.

First Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society. Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Minnesota State Florists' Association. Gust. Malmquist, secretary, Fair Oaks, Minneapolis, Minn.

Third Tuesday every month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Fourth Friday every month, Red Bank,

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Morris Country Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown. N. J.

Second Wednesday every month, except July and August, 8 p. m., Madison, N. J.

Nassau County Horticultural Society.

Harry Jones, secretary, Glen Cove, N. Y. Second Wednesday every month, Pembroke Hall, 7 p. m.

New Bedford Horticultural Society.

Jeremiah M. Taber, secretary, New Bedford, Mass.

First Monday every month.

New Jersey Floricultural Society.

Geo. W. Strange, secretary, 216 Main street, Orange, N. J.

First Monday every month, Jr. O. W. A. M. Hall., 8 p. m.

New London Horticultural Society.

John Humphrey, secretary, New London, Conn.

Second Thursday every month, Municipal Bldg.

New Orleans Horticultural Society.

C. R. Panter, secretary, 2320 Calhoun street. New Orleans, La.

Third Thursday every month, Association of Commerce Bldg.

Newport Horticultural Society.

Wm. Gray, secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club.

John Young, secretary, 54 W. 28th street, New York.

Second Monday every month, Grand Opera

North Shore Horticultural Society.

Leon W. Carter, secretary, Manchester, Mass.

First and third Fridays every month.

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society.

M. J. O'Brien, secretary, Mt. Kisco, N. Y. Third Thursday every month, except June to August, at 8 p. m.; December to February, 3 p. m.

Oyster Bay Horticultural Society.

A. R. Kennedy, secretary, Westbury, L. I. Fourth Wednesday every month, Oyster Bay, N. Y., 7:30 p. m.

Pacific Coast Horticultural Society.

W. A. Hofinghoff, secretary, 432 Phelan Bldg., San Francisco, Cal. First Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society.

Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month.

Paterson Floricultural Society.

Sebastian Hubschmitt, Jr., secretary, 61 Seventh ave., Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society.

David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

Third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut st., Paterson, N. J.

First and last Friday every month, Working Man's Institute, Paterson, N. J.

Philadelphia Florists' Club.

David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

First Tuesday every month, Horticultural Hall, 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. First Tuesday every month, Fort Pitt Hotel.

Rhode Island Horticultural Society.

E. K. Thomas, secretary, Box 180, Kingston, R. I.

Third Wednesday every month, Public Library, Providence, R. I.

Rochester Florists' Association.

H. R. Stringer, secretary, 47 Stone street, Rochester, N. Y.

Second Monday every month, 95 Main street. East.

Shelter Island Horticultural and Agricultural Society.

First and third Thursdays every month.

Southampton Horticultural Society. Julius W. King, secretary, Southampton. N. Y.

First Thursday every month, Oddfellows Hall.

Tacoma Florists' Association.

F. H. Atchison, secretary, South 50th and East F street, Tacoma, Wash.

Third Thursday, Maccabee Hall, 11th and C streets.

Tarrytown Horticultural Society.

E. W. Neubrand, secretary, Tarrytown, N. Y.

Last Tuesday every month, 7:30 p. m.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y.

First Wednesday every month.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington, D. C.

First Monday every month.

Yonkers Horticultural Society. Thos. Mahoney, secretary, Yonkers, N. Y. First Friday every month, Hollywood Inn., 8 p. m.

Westchester and Fairfield Horticultural Society.

J. B. McArdle, secretary, Greenwich, Conn. Second Friday every month, Doran's Hall. Greenwich, 8 p. m.

# GARDEN CLUBS

International Garden Club. Miss Mary M. Kearney, secretary, 123 East 53rd street, New York.

Club House, Bartow Mansion, Pelham Bay Park, N. Y.

The Garden Club of America.

Mrs. J. Willis Martin, president, 1721 Locust street, Philadelphia, Pa.

The Garden Club of Alma, Mich.

Twice a month at members' residences.

The Garden Club of Alleghany County, Pa. Mrs. F. H. Denny, president, Sewickley, Pa. Mrs. Benjamin W. Morris, secretary, Mt.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich. Miss Annie Condon, secretary, 920 Uni versity avenue.

The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle, secretary, Gladstone, N. J.

Second and fourth Thursdays, middle of April to November. August excepted.

The Garden Club of Cleveland, Ohio. Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Mrs. F. K. Holister, secretary, East Hampton, N. Y.

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood, N. J.

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob, Conn. At members' residences.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson P. O., Md.
First and third Thursdays, April to

The Gardeners of Mont. and Dela. Counties, Pa.

December at members' residences.

Miss Elizabeth D. Williams, secretary, Haverford, Pa. At members' residences.

The Weeders' Club, Pa.

Miss Ellen Winsor, secretary, Haverford, Pa.

First and third Wednesday at members' residences.

The Garden Club of Lake Forest, Ill. Mrs. Tiffany Blake, president, Lake Forest, ÎII

The Larchmont Garden Club, N. Y. Mrs. Edgar Park, secretary, Larchmont, N. Y.

First Thursdays. The Garden Club of Lawrence, L. I.

Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass. Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York.

First and third Mondays, June to October at Lenox.

The Garden Club of Litchfield, Conn. Mrs. Henry S. Munroe, secretary, 501 W 120th street, New York. Second Friday, June to October at Litch-

The Garden Club of Michigan.

field.

Miss Sarah W. Hendrie, secretary, Grosse Pointe Farms, Mich.

At members' homes. Two Spring and one Fall Shows. Fifty-third street, New York. ton, L. I.

The Millbrook Garden Club, N. Y. Mrs. E. J. Lamb, secretary, 803 State street. Mrs. Keyes Winter, secretary, 125 E. 78th Twice a month at members' residences. Meet at Millbrook, Dutchess County, N. Y.

> The Bedford Garden Club, N. Y. Kisco, N. Y.

The Garden Club of New Canaan, Conn. Mrs. Francis H. Adriance, secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I. Miss Dorothea G. Watts, secretary, Newport, R. I.

Annual Meeting, August. Others when called. Five monthly summer shows.

The Newport Garden Club. Mrs. Chas. F. Hoffman, president, 620 Fifth avenue, New York.

The Garden Club of New Rochelle, N. Y. Mrs. Lucius W. Hitchcock, corresponding secretary, Premma Point Park. Members residences and Public Library. Shows monthly, May to November,

The Garden Club of Norfolk, Conn. Philemon W. Johnson, secretary, Norfolk, Conn.

Second Wednesday each month at Public Library.

North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa. Miss Ernestine A. Goodman, secretary, Chestnut Hill.

The Garden Club.

Mrs. Aubrey Pearre, Jr., secretary, Pikes-ville, Md.

The Garden Club of Ridgefield, Conn. Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York.

Twice monthly at Ridgefield. Also exhibitions.

Rumsen (N. J.) Garden Club. Mrs. Howard O. Borden, president. Rumsen.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md.

The Garden Club of Rye, N. Y. Mrs. Samuel Fuller, secretary, Rye, N. Y. First Tuesdays, April to October. Also special meetings and Flower Shows.

The Garden Club of Seabright, N. J. Mrs. H. L. Cranford, secretary, Seabright, N. J.

The Shedowa Garden Club, New York. Miss Mary Young, secretary, Garden City, N. Y.

Second Wednesday each month at members' residences. Vegetable and flower shows, June and September. Correspondence with other clubs invited.

Short Hills Garden Club, N. J. Mrs. C. H. Stout. secretary, Short Hills, N. J. Weekly at Short Hills Club House. Flower Shows April and June, and annual Dahlia Show.

The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W. 33rd street. New York.

Twice a month in summer at Southamp-

The Staten Island Garden Club, N. Y. Mrs. J. Harry Alexander, secretary, Rose-

bank, S. I. Twice a month. At members' homes. Winnetka, Ill.

The Garden Club of Trenton, N. J.

Miss Anne MacIlvaine, secretary, Trenton, N. J.

Bi-monthly meetings at members' residences.

The Garden Club of Illinois. Mrs. William G. Hibbard, Jr., secretary, Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.

Mrs. Morris Rutherford, secretary, Warrick, Orange County, N. Y.

Warrenton Garden Club, Virginia. Mrs. C. Shirley Carter, secretary, Warrenton. Va.

# HORTICULTURAL EVENTS

Fourth National Flower Show, under the auspices of the Society of American Florists and Ornamental Horticulturists, Philadelphia, Pa., March 25 to April 2, 1916.

International Flower Show, Grand Central Palace, New York, 1916.

American Sweet Pea Society. Sweet Pea Show, Newport, R. L. July 15, 16, 1915.

American Gladiolus Society, Annual Show, Newport, R. I., August 18-19, 1915. Special show, Atlantic City, August 26 29,

Chrysanthemum Society of America, Annual Show, Cleveland, Ohio, November 10-14, 1915. Special Show, San Francisco, Cal.

Cleveland Flower Show, Coliseum, Cleveland, Ohio, November 10-14, 1915.

American Institute, Annual Chrysanthemum Show, Engineers' Building, New York. November 3, 4, 5.

Connecticut Horticultural Society, Annual Dahlia Show, September 22 23, 1915,

Dutchess County Horticultural Society, Annual Flower Show, Poughkeepsie, N. J. October 28-29.

Horticultural Society of New York, Annual Fall Show, November 4-7, 1915.

Lenox Horticultural Society, Summer Show, Lenox, Mass., July 27-28, 1915.

Morris County Gardeners' and Florists' Society, Annual Fall Show, October 28, 29, Madison, N. J.

Nassau County Horticultural Society, Rose Show, Nassau Country Club, Glen Cove, L. I. Dahlia Show, October 7. Fall Show, October 28-29. Dahlia and Fall Show will be held in Pembroke Hall, Glen Cove. N. Y.

New Bedford Horticultural Society, Dahlia Show in September. Chrysanthemum Show in November. New Bedford, Mass.

New London Horticultural Society, Chrysanthemum Show, November 3-4, 1915. New London, Conn.

Newport Garden Club and Newport Horticultural Society, Midsummer Show, August 12-13-14, 1915. Newport, R. I.

New Jersey Floricultural Society, Dahlia and Vegetable Show, Orange, N. J., October 4, 1915.°

Oyster Bay Horticultural Society, Spring Show, June 11. Dahlia Show. October 5-6. Chrysanthemum Show, November 2. Oyster Bay, N. Y.

Paterson Floricultural Society, Annual Flower Show, September. Chrysanthemum Show, November. Y. M. C. A. Building. Paterson, N. J.

Pennsylvania Horticultural Society, Sweet Pea Show, Jenkintown, Pa., June 23.

Rhode Island Horticultural Society, S tember exhibition, September 16, 17. November exhibition, November 11, 12. Narragansett Hotel, Providence, R. I.

Southampton Horticultural Society, Annual Flower Show, July 28-29, 1915. Southampton, N. Y.

Tarrytown Horticultural Society, Annual Fall Show, November 3, 4, 5, Tarrytown, N. Y.

Westchester and Fairfield Horticultural Society, Fall Show, Stamford, Conn., November 2-3, 1915.

If you are a member of a local horticultural society or a garden club and do not find the report of your association's meetings or other events of it in our columns, their omission is due to the fact that your secretary has not sent them in. Get after him!

### NEW CANAAN, CONN., SHOW.

The seventh annual exhibition of the New Canaan (Conn.) Garden Club was held on Monday afternoon and evening, June 24. The Show was regarded one of the best ever held by the club. The decorations of the hall gave the impression, as one entered, of a garden. Pergolas, trellises, and garden seats were employed to produce this effect. A great variety of outdoor flowers were on exhibition, the quality of some of which could not have been surpassed. Vegetables were also an interesting feature. judges were: Alexander Goddis, C. H. Totty, and P. W. Popp.

The list of principal prize winners

follows:

### HYBRID TEA ROSES.

Radiance, blue ribbon, Mrs. H. J. Davenport
Mrs. Aaron Ward, blue ribbon, Mrs. Philip
Gossler, red ribbon, Mrs. H. J. Davenpott
Kaiserin Amasta Victoria, blue ribbon,
Mrs. Charles Diefenthaler,
Pink hybrid tea, blue ribbon, Mrs. Elizabeth
Schettler; red ribbon, Mrs. H. J. Davenport,
White hybrid tea, blue ribbon, Mrs. Clarles
Diefenthaler; ted ribbon, C. Trothingham
Yellow hybrid tea, blue ribbon, Miss Elizabeth Schettler; red ribbon, Mrs. Charles
heth Schettler; red ribbon, Mrs. Charles Diefen
thaler.

thaler.

Red hybrid tea blue ribbon, Miss Franc's Anderson; red ribbon, C. Frothingham.

Teas or hybrid teas, blue ribbon, Mrs. C'arles Diefenthaler; red ribbon, Mrs. H. J. Davenport.

### HYBRID PERPETUAL BOSES

Frau Karl Druschki, blue ribbon, Mrs. Charles Diefenthaler; red ribbon, Mrs. Irving Lock-

Mrs. John Lang, blue ribbon, Mrs. Walter E. Coe; red ribbon, Miss Frances Anderson, Ulrich Brunner, blue ribbon, Mis. P. H.

Williams,
White hybrid, no exhibit.
Pink hybrid, blue ribbon, Mrs. Arthur McMullen; red ribbon, Miss Fanny Heyt
Red hybrid, blue ribbon, C. Frothingham;
red ribbon, Mrs. Charles Diefenthaler.
Collection hybrid, blue ribbon, Mrs. Charles
Diefenthaler; red ribbon, Mrs. Ernest Greene,
General display bedding roses, ounlity and
number of blooms, blue ribbon, Mrs. F. H. Adriance,
General display bedding roses, from gardens
containing not more than 200 plants, blue ribhon, Mrs. John D. Featlake
Climbing roses, blue ribbon, Mrs. B. Fischer;
red ribbon, Mrs. H. H. Knox.

### DELPHINUM.

General collection, blue ribbon, Mrs. A. M. Gerdes; red ribbon, Mrs. Irving Lockwood,

# IRIS.

General collection, blue ribbon, Mrs. H. H.

LILIES.

General collection, blue ribbon, Mrs. L. Lapham; red ribbon, Mrs. H. J. Davenport,

AQUILEGIA.

Collection, blue ribbon, Mrs. Arnold Schlaet; red ribbon, Mrs. L. H. Lapham.

DIGITALIS.

Collection, blue ribbon, Mrs. R. W. Westbrook; red ribbon, Miss Fanny Hoyt.

### MISCELLANEOUS.

Spencer sweet peas, blue ribbon, Mrs. Charles Diefenthaler; red ribbon, Mrs. Schuyler Mer-

ritt.
Perennials, blue ribbon, Mrs. H. H. Knox;
red ribbon, Miss Fanny Hoyt.
Especially deserving perennial, blue ribbon,
Miss Elizabeth Schettler; red ribbon, Mrs. H.

MISS EMEABLE RENETTER; red ribbon, Mrs. H. B. Davenport.
Collection of annuals, blue ribbon, Mrs. B. Fischer; red ribbon, Mrs. L. H. Lapham.
Artistic arrangement of wild flowers, blue ribbon, Mrs. John D. Fearhake; Mrs. John E.

Weeks,
Artistic table arrangement, blue ribbon, Mrs,
John E. Weeks; red ribbon, Miss Fanny Hoyt,
Strawberries, blue ribbon, Mrs, Art'ur McMullen; red ribbon, Miss Faile,
Small fruits, blue ribbon, Mrs, L. H.

### HORTICULTURAL SOCIETY OF N. Y. SHOW

The above named society held an exhibition in the Museum building. Bronx Park, June 26-27, which was noteworthy on account of the quantity of fine hardy stock displayed. The stock was good, and tastefully arranged. Leading exhibitors were: Bobbink & Atkins, Rutherford, N. J., hardy perennials, polyantha roses, hybrid tea and tea roses, and a collection of delphiniums; William Shillaber, Essex Falls, N. J. (J. P. Sarenson, gardener), hardy rambler roses, including Tausendschon, Dr. W. Van Fleet. Hiawatha. Silver Moon Everblooming, Flower of Fairfield. Lady Gay. Aberie Roabier, Gardenia. Dorothy Perkins and White Dorothy; John Lewis Childs, Flowerfield, N. Y., yellow Calla Elliottiana, and lilies and irises: Mrs. F. A. Constable, Mamaroneck, N. Y. (James Stuart, gardener), vases of hybrid perpetual roses; Mrs. W. G. Nichols, Rye, N. Y. (G. N. Sullivan, gardener), collection of flowers of herbaceous plants: T. A. Havemeyer, Glen Head, N. Y. (A. Labodny, gardener), collection of flowers of shrubs and trees; Mrs. Benjamin Stern, Roslyn, N. Y. (H. Gold, gardener), collection of sweet peas; Adrian Iselin, New Rochelle, N. Y. (Joseph Tiernan, gardener), collection of delphiniums, which were exceptionally fine, also a collection of sweet peas: Mrs. H. Darlington, Mamaroneck, N. Y. (P. W. Popp, gardener), Allamanda Schottii; Lager & Hurrell, Summit. N. J., large plant of Orchid cattleya gigas. A number of prizes were awarded.

# NEWPORT, R. I. SHOW.

The June rose show, under the auspices of the Garden Association, assisted by the Newport Horticultural Society, was held on the Garden Association's new grounds, corner of Old Beach road and Gibbs avenue.

The best collection of named hybrid perpetual roses was awarded to William Waldorf Astor (Hugh Williamson, gardener); the best display arranged for effect went to Robert W. Goelet (Colin Robertson, gardener). For the best collection other than hybrid or tea roses the award was taken by A. F. Fish, New Bedford, Mass. For the best collection of tea and hybrid tea Colonel H. E. Converse (David Ray, gardener), captured the honors. Mrs. William Leeds (William Gray, gardener) was winner of several first prizes in the rose classes

In the strawberry classes for the best dish of Gandy First, Mrs, French Vander-

dish of Nick Ohmer, shown by David Roy, seemed to be the tavorite strawberry.

Under the head of centerpieces, tancy baskets and vases, the fancy basket shown by Mrs. W. W. Sherman (Andrew Ramsay, gardener) took first prize. This basket was round, with a tall handle and was filled with Mrs. Aaron Ward roses and rose foliage with a large bow of orange-yellow ribbon. The basket and roses matched in color and the whole was strikingly handsome and thought well enough of by the judges to award it the American Rose Society's bronze medal.

The best centerpiece was shown by Mrs. W. B. Leeds. The base of this basket was filled with Rhea Reid roses and foliage and had a tall tapering vase in the centre filled likewise. The Rhea Reid rose was shown in several classes and it attracted much attention, arranged both in single and bunches, and was awarded first prize for the best 12 outdoor hybrid tea roses. These were exhibited by Mrs. W. B. Leeds.
In the special awards, the American Rose

Society's bronze medal was awarded to Mrs. William Waldorf Astor, for a splendid exhibition of hybrid perpetual roses. Mrs. W. B. Leeds won the silver medal of the American Rose Society for her exhibit of roses of the hybrid tea varieties.—Am. Florist

### MASSACHUSETTS HORTICULTURAL SOCIETY SHOWS.

The three June exhibitions of the Massachusetts Horticultural Society were all especially good this season. June shows are so dependent on climatic conditions that they are always somewhat uncertain, and postponed exhibitions are not as a rule successes. Otherwise all the exhibitions would have been still better if held a week

On June 5 and 6 there were extensive displays of German Iris, some of the largest contributors being T. C. Thurlow's Sons Co.; Martin Sullivan, gardener to William Whitman; E. N. Dunpke; George Page, gardener to Mrs. Frederick Ayer; and William Thatcher, gardener to Mrs. John L. Gardner; the last named had the best orchid group. Martin Sullivan had the best twelve plants of Canterbury Bells.

Duncan Finlayson, gardener to Larz Anderson, took first prize for twenty-five varicties of herbaceous plants. Cut rhododendrons made a smaller display than usual, the largest collection being from T. D. Hatfield, gardener to Walter Hunnewell, who received a silver medal. Henry Stewart. W. C. Winter and T. C. Thurlow were among the prize winners.

E. H. Wetterlow was awarded a certificate of merit for new pink pelargonium Lady Rosere Mary Pelton. Donald McKenzie, gardener to E. B. Dane, showed some fine Clerodendron Balfourianum. Henry Stewart had some grandly flowered specimens of the old Oncidium flexuosum. He received a certificate of merit for a fine specimen of Cattleya citrina splendidly flowered. F. J. Dolansky had a fine group of Cattleya Mossiae and gigas, also very fine Miltonia vexillaria carrying as many as eleven flowers per stalk. There were numerous exhibits of Aquilegias and other garden flowers.

The display of peonies on June 19 and 20 filled the main exhibition hall, over 10,000 blooms being staged. R. & J. Farquhar & Company received a silver medal for a notable display. F. C. Thurlow's Sons Co. had 2,500 flowers. A. P. Sanders showed 200 varieties. Some other contributors were Martin Sullivan, gardener to William Whit-

milt (Daniel Hays, gardener) was first. Al man; Mrs. J. F. Fleod; William Thatcher. A. H. Fowkes; Mrs. C. S. Minot; Wellesley Nurseries; Blue Hill Nurseries; Eastern Nurseries, and Bay State Nurseries.

Hardy roses were fewer than usual, the date being ten days too early. The principal prize winners for these were Thomas N. Cook (John D. Gordon, gardener); J. D. Christensen, gardener to Mrs. Frederick Ayer and Mrs. N. P. (atter. William Thatcher and Duncan Finlayson had the best Sweet Williams, the last named were for twenty-five vases of berbaceous plants. Martin Sullivan and Donald McKenzie led tor Campanula medium. Mr. McKenzie received a silver medal for a tastefully arranged group of orchids.

For six Gloxinias, William Thatcher received first and Henry Stewart second. There were numerous nursery displays of peonies and hardy herbaceous plants in great variety. In the strawberry classes Marshall once more proved invincible, Golden Gate and Barrymore following in quality. Vegetables were largely shown. For eight varieties J. D. Christensen, gardener to W. J. Clemson, was first.

The Boston Sweet Pea Show will take place on July 9 and 10,

### OYSTER BAY HORTICULTURAL SOCIETY.

The regular monthly meeting of the Oyster Bay Horticultural Society was held on Wednesday, June 23, in Fireman's Hall, Oyster Bay. President Jos. Robinson, presided. Three new members were taken in.

Fifty-eight vases of Flowers, five dishes of Vegetables, three dishes of Fruit were on the exhibition tables, Messrs, Woolson, Robinson and Humphreys were appointed judges and reported as follows:

Judges and reported as follows:

Society's prize for 6 sprays of roses, James Duckham; society's prize for 12 pods of peas. Frank Petroccia; society's prize for 12 strawsceries, Arthur Patten; Howard C. Smith's prize of \$5 tor 12 vases of sweet peas first prize, James Duthie's prize of \$6 for 6 vases of sweet peas sfirst prize, James Duthie's prize of \$6 for 6 vases of sweet peas sfirst prize, Frank Kyle; second prize, C. E. Moyses; vase of climbing roses, by John Sorosick, honorable mention; vase of orchids in variety, by John Ingram, honorable mention; vase of delphinium, by Frank, Kyle, honorable mention.

Mr. H. Gibson made a very interesting

Mr. H. Gibson made a very interesting report on the visit of a delegation of gardeners, from Oyster Bay, to the Ward Estate, at New Rochelle, to see Mr. Butterback's new fruit gardens.

Mr. Woolson and Mr. Duthie also gave humorous talks

It was decided to hold the annual outing in August. Notice of time and place will appear in notice of next meeting

ANDREW R. KENNEDY, Sec.

### CONNECTICUT HORTICULTURAL SOCIETY.

This society held its regular June meeting on Friday evening, June 25, at 8 o'clock, in the County Building, Hartrord. committee in charge of the June Flower Show made its report, stating that they eleared about \$80, all expenses paid, which they have turned over to the Union for Home Work.

Much discussion was indulged in over the question of admitting an outside society into full membership as a branch of the Connecticut Horticultural Society, and it was finally left to the members to think the matter over when they would be better able to present their views, when the matter would be finally turned over to a committee to draw up definite plans for presentation to the society. Messrs. Alfred Dixon, W. W. Hunt and Mrs. William H. Plan for the Color-Glories of late Summer. Nature will supply the golden background for

# Shorburn's Seeds

PICTURE the rich crimsons, the fiery scarlets, the refreshing lavenders.

Whether you are planning color beauty for rockwork, sub-tropical garden, flower spray, shrubbery or background, we have the seeds for you.

Even if you are a very experienced gardener vou will be surprised at the novelty and variety of seeds we have to aid you in carrying out the color pictures in your mind's

We have a catalog for you too. Let us have your name so that we may send you a copy. Write

### J. M. THORBURN & CO.

53U Barclay St., through to 54 Park Pface NEW YORK





# Plant for Immediate Effect Not for Future Generations

START with the largest stock that can be secured! It takes over twenty years to grow many of the Trees and Shrubs we offer.

We do the long waitingthus enabling you to secure trees and shrubs that give immediate results.

Price List now ready.

INDORRA I lurseries Wm. Warner Harper Proprietos





tells the Plain Truth about Burpee-Quality Seeds. It is mailed free. Write for it today,—"Lest you forget." A postcard will do. W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia.

Palmer were appointed a committee to draw up resolutions regarding the death of the late James J. Goodwin, one of our life members

President Warren S. Mason, superintendent of the Pope Estate at Farmington, had on exhibition a very fine collection of roses, comprising 45 varieties, the most attractive being specimens of Frau Karl Druschki, Ulrich Brunner, Cecile Brunner, Radiance, Margaret Dickson, John Hopper, George Arends and Nova Zembla. President Mason was much pleased with the growth made by this latter rose, stating that in his opinion it was equal to Margaret Dickson and Karl Druschki. Crimson Rambler, Dorothy Perkins, Gardenia, Silver Moon, Tausend-schon, Philadelphia, and Waterbury Ramblers were in the collection of hardy climbing roses. W. W. Hunt, G. H. Hollister and Theodore Standt was named as judges, and they were awarded the exhibit of President Mason, a first-class diploma, and the smaller exhibit of Mr. H. L. Ritson received honorable mention.

Two life and twelve annual members were admitted to the society. Our next meeting will be held in September, the society taking the months of July and August as a vacation.

ALFRED DIXON, Secretary. Wethersfield, Conn., June 28, 1915.

### PATERSON FLORICULTURAL SOCIETY.

At our June meeting the following awards were made:

For the best display, first prize, Riverlawn Gardens, Robt. Petree, gdr., display of Iris; second prize, Wm. Parker, display of H. P. Roses; third prize, Jas. Schofield, display of H. T. Roses.

For cultural points: first award, Jas. Schofield; second award, Wm. Parker; third award, Riverlawn Gardens.

Honorable mention: Benjamin Bentele, Marion T. Probert. Robt. P. Baggaley.

S. HUBSCHMITT, JR., Sec.

# MADISON (N. J.) ROSE SHOW.

The rose show held at Madison, N. J., on June 17 was a great success. There were no money prizes offered but nevertueless the gardeners responded freely. There were some fine exhibits and competition was close. Arthur Herrington gave an illustrated lecture in the evening on the rose, which was greatly appreciated.

The chief exhibitors were William Duck-ham, David Francis, Robert Francis, Ernest

Wild, Robert Tyson, L. A. Lockwood, Chas. Barbour, C. H. Stout. Robert Tyson—Cultural certificates for garden peas and two bunches greenhouse

A. Lockwood, certificate for 12 peonies. Mrs. Wm. P. Jenks was awarded the society's silver medal for two magnificent standard fuchsias.

Mrs. C. H. Stout received a certificate award for three special vases sweet peas.

Mrs. T. E. Lowe, vases of fine roses, awarded a certificate.

Edw. Reagan, cultural certificate for Canterbury bells, delphinium and anchusa.

Robert D. Foote, certificate of merit for a grand specimen with over 70 open flowers

of cattleya gigas Sanderiana.
P. D. Witing, certificate for sweet peas. C. H. Totty certificate for three vases

The best vase of roses in the show, according to the judges, was that of W. R.

Smith, shown by David Francis, superintendent to Charles Bradley of Convent. Delphiniums of Robert Francis, superintendent to W. V. S. Thorne of Normandie Park, were the best ever seen in this vicinity.—Record.

### TARRYTOWN (N. Y.) SHOW.

The annual June exhibition of the Tarry town Horticultural Society was held in the gymnasium of the Young Men's Christian Association Building June 16. The show was larger and finer than last year's. was free to the public, and was open from 2 o'clock in the afternoon until 10 o'clock in the evening.

All of the exhibits were of very fine quality. There was keen competition in the classes for school children, which classes were very interesting.

A silver medal was awarded the F. R. Pierson Company for a vase of Ophelia roses and a cultural certificate for Francis Scott Key roses, and an exhibit of a fine collec-

tion of climbing roses, etc.

Dr. C. C. Brace exhibited a beautiful collection of campanulas, for which he was awarded a special prize. Special prizes were also awarded to Col. Jacob Ruppert for a fine display of dianthus and to Mrs. W. G. Nichols for seedling carnation. Col. Franklin Brandreth exhibited a very fine lot of hybrid tea roses, for which he was awarded a cultural certificate. A cultural certificate was awarded also to Charles H. Tibbits for a fine display of pansies. Mrs. John D. Archbold exhibited a fine vase of Canterbury bells and yellow antirrhinums, for which she was given honorable mention. Mrs. J. B. Trevor exhibited a seedling dracena, receiving honorable mention.

The judges were James Stuart, Mamaroneck, N. Y.; Joseph Mooney, Hastings, N.

Y., and W. H. Harvey, Ossining.

Y., and W. H. Harvey, Ossining.

Best collection Hardy Perennials not exceeding 12 varieties 1st prize, Mrs. H. Darlington: P. W. Popp, gardener; 2d prize, Mrs. S. Hermann; Abel Weeks, gardener.

Best three quarts of strawberries 1st prize, A. A. Browning; Frank Jamgotsch, gardener.

Best vase of Perpetual Hybrid Roses, 12 assorted blooms—1st prize, George D. Barron; James Lilane, gardener; 2d prize, Mrs. Carl Victor; Thomas A. Lee, gardener.

Best collection Outdoor Roses—1st prize, Gen, I; A. McAlpin; John Woodcock, gardener; 2d prize, Mrs. H. Darlington.

Best vase Outdoor Roses, 12 varieties one of each—1st prize, Gen, E. A. McAlpin; 2d prize, P. E. Randall; Tred Bradley, gardener.

Best three varieties of Hybrid Tea Roses—1st prize, John D. Rockefeller; W. G. Woodger, gardener; 2d prize, Mrs. W. G. Nichols, Geo N. Sullivan, gardener.

Best six varieties of Hybrid Tea Roses—1st prize, Gen, E. A. McAlpin; 2d prize, John D. Rockefeller.

Bost three varieties Outdoor Roses—1st prize, David L. Luke; John Elliott, gardener; 2d prize Varieties Outdoor Roses—1st prize, David L. Luke; John Elliott, gardener; 2d prize Mrs. Carl Victor

D. Rockefeller.

Rest three varieties Outdoor Roses 1st prize, David L. Luke; John Elliott, gardener; 2d prize, Mrs. Carl Victor

Best twelve blooms Outdoor Roses 1st prize, David L. Luke; 2d prize, John D. Rockefeller.

Best display Outdoor Climbing Roses 1st prize, Miss Alice F. Neubrand.

Best eighteen vases Sweet Peas, 18 varieties 1st prize, Mrs. J. B. Trevor; Howard Nichols, gardener; 2d prize, Dr. L. H. Backeland; James Caselli, gardener.

gardener; 2c prize, Dr. L. H. Backelant; James Caselli, gardener. Best twelve vises Sweet Peas, 12 varieties 1st prize, George D. Barron; 2d prize, D. E. Oppenheimer; A. MacDonald, gardener, Best arranged floral decoration for circular table—1st prize, George Wittlinger; 2d prize, Miss M. Ewing. Best three varieties Peonles, six of each.

Best arrange table—1st prize, George with table—1st prize, George with the first Miss M. Ewing.

Best three varieties Peonies, six of each 1st prize, Mrs. H. Darlington; 2d prize, Dr. C. C. Brace.

The collection twelve varieties of vegetables are collection twelve varieties of vegetables. C. C. Brace, Best collection twelve varieties of vegetables—1st prize, Mrs. J. B. Trevor; 2d prize, Miss Blanche Potter. Special prize awarded to Col. Jacob Empert (Frank T. Reid, gardener) for collection of

Blanche Potter.
Special prize awarded to Col. Jacob Ruppert (Frank T. Reid. gardener) for collection of dianthus.

GREENWICH (CONN.) SHOW.

The annual summer exhibition of the Westchester (N. Y.) and Fairfield (Conn., Horticultural Society was held in the Town Hall, Greenwich, Conn., June 18 and 19. The quality of the exhibits was of marked superiority throughout, and the 55 classes embraced in the schedule were all well filled. Competition was very keen. Special features were the trade displays of the George E. Baldwin Co., orchid specialists of Mamaroneck, N. Y., who received a C. M.

for a fine table of orchid plants in bloom? consisting of choice and rare sorts. Scott Bros., of Elmstord, N. Y., received a C. M. for a fine display of roses and perennials. Honorable mention was accorded to the J. H. Troy Nurseries, of New Rochelle, N. Y., for display of h. t. roses; also to the A. N. Pierson, Inc., for display of novelties in h. t. and rambler roses. Six decorated dinner tables were in evidence, all good and all tastefully arranged. First prize went to Mrs. W. M. Bennet, Greenwich. Conn.; second, Fred Lagerstam, Greenwich, third, G. D. Sullivan, gardener to Mrs. Wm. Nichols, Ryc. N. Y. Miss F. L. Burgevin, Port Chester, N. Y., received H. M. The same honor went to Walter J. Deck, of the Millbank Greenhouses, Greenwich.

The special prize for moss roses was again won by P. W. Popp, gardener for Mrs. H. Darlington, Mamaroneck, who also won first for basket of sweet peas. The chief award for a vase of sweet peas went to Fred Lagerstam. A. C. M. was awarded to Rob ert Williamson for a table display of foliage plants; and C. M. to Robt. Allen for group of orchids and foliage plants.

It is gratifying to note the increasing interest taken in these exhibitions by the true amateurs-those who do not employ professional help. The classes provided for this section were all well filled and some really good exhibits were in evidence.

The judges were Messrs, John Everett,

Glen Cove, L. I.; William Jamieson, Tarrytown, N. Y., and Martin O'Brien, Mt. Kisco. N. Y., whose decisions were received with satisfaction.

satisfaction.

The principal winners in the cut rose section were: E. C. Benedict, Greenwich (Robert Allen, gardener); G. D. Barron, Rye (Jas. Linane); Mrs. Wm. G. Nichols, Rye (G. D. Sullivan); Mrs. H. Darlington, Mamaroneck; Moses Taylor, Mt. Kisco (Mex. Thompson); Mrs. A. P. Stokes, Noroton, Conn. (A. White law); Mrs. F. A. Constable, Mamaroneck (Jas. Stuart); Robt, Mallory (Port Chester (Wm. Smith); Chas. Mallory (W. J. Sealey); Henry R. Mallory (Patrick Fairfield); Wm. Shillaber, Essex Falls, N. J. (J. P. Sorenson); C. T. Wills, Greenwich (Martin Glendon); Mrs. H. Shosmaker, Riverside, Coun. (Jas. E. Welcher).

For hardy flowers, 18 kinds, 1st, Mrs. F. A. Constable; 2nd, Mrs. Wm. G. Nichols; 3rd, Mrs. L. C. Bernee (John Andrew). For 9 distinct, 1st, Robt. Williamson; 2nd, Mrs. Arnold Schlact, Saugatuck, Conn. (Ed. Lawrence), 3rd, Mrs. Henry Schaeffer, Greenwich (Jacob Stumpp).

# GLEN COVE (N. Y.) SHOW.

The annual Rose Show of the Nassau County Horticultural Society was held at the Nassau Country Club, Thursday, June 10. A very fine display of Hybrid Tea and Tea Roses was staged, but exhibits in other classes were smaller than usual owing to the lateness of the season.

The following were the successful exhibitors in the different classes:

Collection of outdoor roses-first, Mrs. H

II. L. Pratt; second, Mrs. C. F. Cartledge, Visco of cut flow (1112 free of shrub) first, Mrs. II. I. Pratt; second, Mrs. II. L. Pratt; second, Table decoration first, Mrs. II. L. Pratt; second, II. S. Ladew. The judges were George Ashworth, William Robertson and Angus McGregor. JAMES GLADSTONE, Cor. Sec.

### LAKE GENEVA (WIS.) SHOW.

The annual peony show of the Lake Geneva Gardeners' and Foremen's Association was held in Horticultural Hall, Lake Geneva, Wis., on June 19, 1915. Owing to the weather the show had been postponed for one week, but the exhibition proved a great success and was well patronized by the public. A fine collection of flowers and vegetables was brought together, reflecting great credit on the Lake Geneva gardeners.

The list of prizes follows:
C. L. Hutchinson, Wm. Longland, gardener;
3 pink 1st, 6 pink 2nd, 3 white 3rd,
Mrs. T. J. Lefens, Raymond Niles, gardener;
6 red 2nd, 3 pink 3rd, carrots and cabbage 1st,
beets, asparagus, radish 2nd, cauliflower, peas,
onions and turnips 3rd, strawberries 2nd,
Mrs. Conrad Scime Faul Lobneson, gardener;

atuneus 1st,
E. E. Ayer, Henry Tolman, gardener; peas
1st, cauliflower, beets, lettuce 1st, strawberries
1st, pansies 1st; aqualegia 1st,
J. H. Moore, A. Martini, gardener; hardy
roses 1st, celery 1st, peaches 1st and certificate
of merit, group of plants and flowers 1st.



### EDIBLE FLOWERBULBS.

By JOHN SCHLEPERS.

During the past winter the authorities in Holland have been testing the mixing of flour, made from tulips, with rye-meal, in order to use the product so produced for the making of bread.

It is perhaps apropos to remind interested readers of the fact, that bulbs of various liliacaea make a nourishing food for the native races of many localities. All the allium varieties are also generally caten.

Lilium, fritillaria, calochortus, tulipa, erythronium, ornithogalum, camassia, all are used for food, especially lilium and camassia, being the most important of them all.

The bulb-scales of various lilies are being eaten in Siberia, China and Japan.

Camassia excellenta lindl grows in Western America; these bulbs are eaten by the native races of the Pacific States of North America, from British Columbia to Mexico.

"Camass." or "Quamash," is even in the dry coast section of Northern California, the principal plant-food of the natives, Cakes are made of camassia bulbs; they are roasted in an oven, under the ground, with the use of heated stones, coming out of the oven in a sticky, dark colored mass, and are then kneaded into cakes and rolls, which are allowed to dry in the sun and are often kept for years, before being consumed.

Liliacaea bulbs contain a great percentage of "carbon hydrates," and are therefore considered a splendid food product. They, however, often contain also poison. The tulip, for instance, contains in her fresh bulb a poison, that seems to belong amongst the "alkaloids," but which has not yet been very thoroughly chemically examined.

Amaryllidaea seem to contain still stronger poison, though of some varieties the bulbs are eaten. Of course the preparation, cooking, or roasting, may result in the poisonous properties largely disappearing.

It is a question if all such food is very palatable.

Mice show a preference, declining to touch tulip bulbs, nor do they care for camassia bulbs.

The omnivorous garden snail, "agriolimax agrestis," may eat sliced tulip bulbs, when offered, but greedily devours, in comparison, other tissues containing some similar properties, for instance, potato roots.

I believe that tulip bulbs have been fed to pigs with appreciable results.

In so far as making bulbs palatable to the people at large is concerned, this will, to a considerable degree, depend upon the preparation.

In connection with this we must not lose sight of the fact that the natives in Western America eat nearly everything that the land affords in roots and berries, etc., however distasteful many of those things may be to the white man.

It is a historical fact that as early as the fifteenth Century

tulip bulbs were used as foood.
"('lusius'' speaks about tulip bulbs making good food; in 1592 he ordered a quantity to be preserved (candied), and considered this delicatesse far superior to orchid bulbs prepared in the

### THE CLEVELAND FLOWER SHOW.

Coliseum-November 10 to 14, 1915 Executive Office-356 Leader Building

Cleveland, Ohio, July 8, 1915.

Mr. M. C. Ebel, Secretary,

The National Association of Gardeners, Madison, V. J.: Dear Sir. -Will you please inform the members of your Association that the premiums' committee of the Clercland Flower Show has decided to add a special premium to many of the important classes and sweepstakes, as it will appear in the final premium list which will be mailed September 1.

This special prize will be a five dollar gold piece, given to the section man in charge of the beach or section from which winners of last prices were grown. Our committee decided to issue these special prizes as an inducement to the man behind the hose. It is our opinion that it will make the work of the judges not an easy matter in the selection of prize winners.

We will be glad to hear from nour members who did not receive a copy of our preliminary list, so as to make sure they will receive a copy of our final list.

Yours for a big Cleveland Flower Show, HERBERT BATE,

Chairman, Premiums Committee.



# G. D. TILLEY

# Naturalist

Everything in the Bird Line from a Canary to an Ostrich"

Birds for the House and Porch Birds for the Ornamental Waterway Birds for the Garden, Pool and aviery Birds for the Game Preserve and Park

I am the oldest established and largest exclusive dealer in land and water birds in America and have on hand the most extensive stock in the United States. G. D. TILLEY, Naturalist, Box 10, Darien, Conn. THE EXPLORATION OF THE PROPERTY OF THE PROPERT

# RIDGEWOOD (N. J.) SHOW.

The first annual flower show of the Ridgewood (N. J.) Garden Club was a success, both in the variety of the display as well as the beauty of the flowers and tastefulness of their arrangement, and was a credit to President Roe, C. L. Lersner, chairman of the Show Committee, and the other members.

The large piazza of the Walker home was charmingly decorated with crimson ramblerand forest green, and the exhibits were displayed on tables covered with green crepe paper. There were twelve exhibits of fruits and vegetables.

F. II. Valentine's strawberries (Chesa peake) were particularly large and wellformed berries, and he took the first prizfor fruits.

For vegetables, E. T. Sowter took first prize, and William G. Daub was the winner of the second prize.

The display of flowers was particularly fine, and the basket of Dorothy Perkins roses and gyp-ophila, with sprays of dark blue delphinium shown by A. D. Rowley, attracted much attention. The roses of George E. Henry and E. F. Keller also deserve special mention.

E. T. Sowter had a fine collection of sixteen or seventeen varieties of flowers, many of them grown from seed, including campanulas, pansies, gaillardia, antirrhinum, delphinium, digitalis, iris, stocks, etc. An interesting feature of this exhibit was, that where grown from seed the date of sowing was given.

F. H. Valentine had a most artistic exhibit of about twenty general varieties, considerable skill and excellent taste in the color scherae and arrangement being shown Henry

There were seventeen entries of flowers, other exhibitors being Wesley Van Emburgh with a number of varieties including peonies, dablias, roses, sweet peas and a lemon tree in full bloom; C. Wadsworth with a fine show of roses and a particularly large deep red dahlia; H. S. Vincent, whose delphiniums, larkspurs and antirrhinums were very attractive; R. L. Roe, with admirable deep purple iris, and Wilson Moneypenny, who showed campanulas, Sweet William and other perennials.

A striking exhibit was by William J. Me-Quaid, whose massed effect of correspsis and gaillardia was very effective.

The contest in the flower class was so close that the judges, Mrs. D. A. Garber, Mrs. E. F. Thomas and Mrs. C. W. Stockton, had difficulty in coming to a decision. They finally, however, awarded first prize to E. T. Sowter; second prize to George E.



# "HAMMOND'S GRAPE DUST"

Used effectively to kill Powdery

Mildew on Roses and other Plants.

USED BY THE FLORISTS FOR OVER 25 SUCCESSIVE YEARS

Sold by the Seed Dealers For pamphlet on Bugs and Blights address

HAMMOND'S PAINT & SLUG SHOT WORKS BEACON, N. Y.

Hexagon Shape Highly Polished in Yellow Finish, with Gilt Tip and Red Ring, fitted with last Red Erasive Rubber. The Mikado is a Superior Quality of Pencil and contains the very finest specially prepared lead, which is exceedingly

lead, which is exceed smooth and durable.



No. 2 1-2 Medium Hard No. 3 Hard

No. 4 Extra Hard

CONCEDED TO BE THE FINEST PENCIL | EAGLE PENCIL COMPANY

# ≣под з чис**иония и подражения под** BEAUTIFUL WATER LILIES

Tricker's Water Lilies were awarded a gold medal at the International Slow, New York, March 17th last. Write for booklet containing full description and directions for garden culture, as well as for ponds, fountains, basis, etc.

WM. TRICKER, Box W, Arlington, N. J.

Spring management of promise a sign of memoring (

# IMPORTED ORCHIDS

If you contemplate buying imported stock this year write to me.

JOSEPH MANDA, Orchid Expert, Seedsman and Florist WEST ORANGE, N. J.

### 999 ( 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | 1990) | Chrysanthemums Carnations—Roses

**NOVELTIES FOR 1915** 

If you did not receive our 1915 price list write us

Elmsford Nurseries—Scott Bros., Elmsford, N. Y. Sava er monumum varandinim mones sienminimer s semini samus, sa aminimum maninimis savaniministi se s a a

# ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N J.

# t commissis kapamininininakaaannininininkakkaaannininhaliikkik keronininki isk kalunjinkakkaluninkinhakkkataalunini HILL'S EVERGREENS

Send for Price-list. Mention this magazine

# D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

Rose Growers With a Background of Fifty Years' Experience

The Conard & Jones Co.

West Grove, Pa.

## THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES NURSERIES.

There you will find all kinds and you can take your pick from the best that is grown. Maximum Quality at Minimum Prices. Write W. R. Clucas, Manager

THE PALISADES NURSERIES, INC., SPARKILL, N. Y.

\* 1 and 229 kill 1.1

# A.N. PIERSON INC. CROMWELL CARDENS CROMWELL CONN

# Equipment is a contraction of the contraction of th HARRY BALDWIN

Manufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS MAMARONECK, N. Y.

# A Rose Trellis on Your Veranda

or porch gives seclusion and lends beauty. A very little expenditure will greatly increase the attractiveness of your home. You will not have to buy new trellises every year or two if you take the precaution to buy

Trellises, because they last many years. Exceedingly heavy dip galvanizing prevents rust. Excelsior Trellises afford best protection to roses, vines and perennial climbers. No injury to vines results when house is painted or windows screened. Trellis is easily detached, laid back and put in place again. We also make Excelsior Rust Froof Fences, Bed Guards and Tree Guards. Ask your hardware dealer and write for Catalog J.

WRIGHT WIRE COMPANY Worcester, Mass.



# **Greenhouse Experiment** What Not To Do!



N building a greenhouse which involves a definite outlay of money, no owner can afford to place his operation in the hands of any contractor as an experiment.

We know what to do and what not to do. And the owners who realize this fact employ us. Forty-four years at greenhouse construction has made us experts.

Put your greenhouse problems up to us.

We go anywhere in the U.S.A. to submit plans and specifications.

# METROPOLITAN MATERIAL CO. Greenhouse Builders

1396-1412 METROPOLITAN AVENUE, BROOKLYN, N. Y.



There are over 10 miles of our own railroad. In going over to the western tract that day, one of our friends rode in the engine cab, while the other two of us sat on the water tank on each side of the boiler, where we could plainly see everything there was to see.



From the top of the crag, this posit. The bed they were wo

# A Little Jour

T happened on the fourteenth of June.

There were three of us.

The Little Journey was to be one of convincement. Luckily one of us brought a camera along so we can now show you a few of the things we saw.

We started from the factory, where the natural humus is converted into Alphano, and took our private railway across to the western tract, two miles or more away. The humus deposit here averages 6 feet deep. To get an idea of the real magnitude of the proposition, we climbed up on top of a rocky crag and got a bird's-eye view of one strip over half a mile long, that was being worked.

From here we looked down on the big electric digger which removes the natural crop producing humus and beating it up in fine pieces, scatters it for hundreds of feet, where it lies until cured by the sun and air.

In further parts of the field, electrically driven scrapers were piling the fertile sweetened humus up along the railroad track; and gangs of men shoveling it into the cars.

Long strings of these humus-laden cars were constantly

crossing the field on their way to the big compost piles, whit will stay for months, fermenting and multiplying by millions, the bacteria of ferment, which is absolutely necessate any soil's fertility.

Next we walked back leisurely to the factory, where the natural humus is concentrated and made into Alphano. At a bottom of the compost pile, where the natural humus is old and thoroughly bacterized, a big travelling screw conveys to the huge steel drying drums.

Here we peeked into the drums and saw the heavy mo ture laden natural humus come in at one end, and pass out the other in its dry, finely granulated condition. 75 or 80 of the moisture is entirely driven from it. Several tons of t natural humus make but one ton of the concentrated humus. say it another way—if you buy a ton of the usual, so call Natural Humus, you pay for about 1500 pounds of water

From the drying drums, endless chain buckets take the cocentrated humus up to the mixing room. It was about the mixing room that our two friends seemed the most curious.

But when they saw the rich, concentrated available pla

There are still acres and ac es of the rich leaf mold deposit that we have not yet cleared of its tropical-like tangle. In going through here on our railroad, you would almost declare you were in a Panama forest.

# Alphano 17-G Battery



There are two immense compost piles. This was taken, it contained between 30 and 40 th that several estates on Long Island alone, b need two such piles.



se we saw of the western dea mile long and 6 feet deep.

# To Alphano

ds and bacterial nutrients of highest fertilizing value being led in liberal quantities, they began to see what a distinct inction there is between so called "natural", or raw, waterged, sour humus; and our sweetened, composted, concented dry Alphano, with its rich plant food contents.

They began to see why it is that Alphano puts such quans of immeditely available foods in the soil; and continues

ontribute to its fertility for years to come.

They began to appreciate that the millions of bacteria it

in the soil, must have time to multiply, so they can vigorly attack the soil and liberate the locked up foods it naturcontains. This fact explained to their entire satisfaction Alphano results are so often better the second year than

Next came a look at acres and acres of Alphano grown ry; an Alphano lawn; Rhododendrons and shrubs planted Alphano; fruit trees that were set out with it this spring; vers that were revelling in it. Then it was that our skeptical

nds cranked up their car and went away thoroughly self-conted. Unless all signs fail, they are Alphano converts for life.



Just to prove to my friends that even in its natural state, this humus makes the finest kind of growing soil, I showed them this patch of celery a quarter of a mile long. It was then the fourteenth of June and the men were boarding it for bleaching. On the 26th, we shipped a carload to New York, of the finest early celery you ever set teeth in.

And right now I want to say that a most cordial invitation is extended to you and your friends to come and visit this wonderful natural deposit; and see the highly interesting process of converting it into Alphano. Drop us a card that you would like to go; and I'll try and arrange a day when several of us can go together and make a jolly party of it.

Mr. Ebel, the Editor of the CHRONICLE, recently paid us the compliment of such a visit. The heads of several of the State Experiment Stations are making frequent visits for the benefit of their stations. The government itself, is carrying on extensive experiments on numerous test and trial plots, which they are continually visiting, and checking up the results. So you see it's now high time you came to see us.

MARK





back of the factory. When the photograph t sounds like a lot, but when you consider and more tons apiece, you can see why we



We were several years perfecting this big, powerful, electrically operated machine. It first digs the humus up; then beats it into fine pieces; and scatters it over wide areas to sweeten with the action of sun and air before it is scraped up, loaded on the cars and taken to the compost pile.

# A BIRD BATH OF SHARONWARE



the birds, give them plenty of fresh water for bathing and drinking. Where water is not naturally abundant, a bird bath, such as the one illustrated, should be used. It empties

itself every 24 hours, thereby making it sanitary. This bath is so constructed that the birds may both in water from an eighth of an inch to two it ches deep. It is 17 melies in diameter, 6 inches high and weighs 30 H. It is deconative, artistic and practical, and can be secured in various colors. Price, \$3.50, F. O. B. New York. Crating charge on out-of-town orders, 30 cents extra, Sharonware, the new frost-proof cement garden furnishings, window boxes, jardiniers, flower pots, bird baths, garden seats, etc.

Sharonware Workshop, 42 Lexington Ave., New York City



# Here's the New **Improved**

# Dodson Sparrow Trap

Catches sparrows automatically—has a double funnel trap on left end, a drop trap on right end. There is no other trap like this. Help in the good work of banishing English Sparrows—these quarrelsome pests drive Song Birds away from us. Put out a Dodson Trap. Price, \$6.00, f. o. b. Chicago.

Free Booklet—Tells how to attract native birds. Describes the famous Dodson Bird Houses—20 styles. If you want song birds get genuine Dodson Bird Houses.

Nature Neighbors a Library of fascinating books chiefly about Birds, written by authorities and marvelously illustrated in colors. Write for free illustrated folder.

JOSEPH H. DODSON, 732 Security Bldg., Chicago, Ill.

# MIX CONCRETE



correctly only with a concrete mixer. Hand mixing is expensive and produces poor concrete. We have all sizes of mixers at prices as low as

\$49.50

For Our Hand Power

JAEGER LITTLE

Write today; catalogue and information cheerfully given THE JAEGER MACHINE CO., Rich St., Columbus, O.

ZURKUR K. DOMINININDORJUK 1984 DESKREMBONIKSHI ORA - 14 KODIN DE HIROKEE - 1 1 KESIKHOLDIKAR E. J.



Harmony in color and design, balance, the spring garden and the summer garden, garden accessories, borders and many other things of absorbing interest to anyone who loves to make things grow, are talked about by an expert in

# THE WELL-CONSIDERED GARDEN

By MRS. FRANCES KING

President of the Women's National Agricultural and Horti-cultural Association.

Illustrated, \$2.00 Net CHARLES SCRIBNER'S SONS

# **Bon Arbor Chemical Co.** PATERSON, N. J.

Manufacturers of

BON ARBOR No. 1. Soluble Plant Life. A most wonderful and invigorating food for all plants, indoor and outdoor.

BON ARBOR No. 2. Best dressing for your lawns.

RADIX WORM ERADICATOR. Instantly removes worms from your Tennis Courts, Putting greens, etc.

ANT DESTROYER. Will remove all ants outside or indoors in a week's time. Be sure and try it.

NATURAL HUMUS. Is the best for making new lawns, gardens, etc.

Write for descripive catalogue and prices

By an Unusual Arrangement with the Publishers We Offer to Our Readers on Special Easy Terms

# BAILEY'S New Standard Cyclopedia of Horticulture

Everything Newly Written-Up to Date-Beautifully Illustrated

THE new Standard Cyclopedia of Horticulture has been freshly written in the light of the most recent research and experience. It is not merely an ordinary revision or corrected edition of the old Cyclopedia, but it is a new work from start to finish with enlarged boundaries geographically and practically; it supersedes and displaces all previous editions or reprints of every kind whatsoever.

It is the fullest, the newest, the most authoritative of all works of its kind and constitutes the most conscientious attempt that has ever been made to compress the whole story of our horticultural thought, learning and achievement into one set of books.

Write for 16 Page Prospectus Containing Complete Description and our offer to Subscription Department.

# THE CHRONICLE PRESS, Inc.

Publishers of Gardeners' Chronicle of America 286 Fifth Ave., New York

arga, a caux, ag ragger . candoner communication

Science is teaching that it is as essential to

from insect pests and the various fungi with which it is afflicted as it is to properly fertilize it.



the Later profession and the Later profession and state that profession and the Later profession. It is each the Later Later the Later Later than the Later Later than the Later Later than the Later Later than the Later Lat

Gill, 25c.; half pint, 40., pint, 65c.; quart, \$1.00; gallon, \$2.50,

As a section spray for leady to escape and plants to set offering econody against green, blook and whate fly, red spoter, the possibly artise contour earlies such table scale, menly big, at leafle set is such. The original Scalar to forty to fifty parts water.

the second of the elegator es ment over the old tash, ned kerosene emulsion; more effective and more economical. It mayes readily with water, contains no sediment, and the bounces of the following terms of the contains and the contains and the contains and the contains and the contains of the contains and t

where the contract of the contract of a neglected form of the contract of the

It is an infallible remedy for mildew, rust and wilt, affecting flower of the free control of the first successful to grow the control of the first successful for each to the first successful first successful for each to the first

Half pint, 30c.; pint, 50c.; quart, 75c.; gallon, \$2.00.

or as 1 for extrinit critical. Derives of vice cell and glab volus mangets each is set four 1 second just to local richer parts water, thoroughly soaking the ground, it will protect your plants and lawns against ravages under the soil.

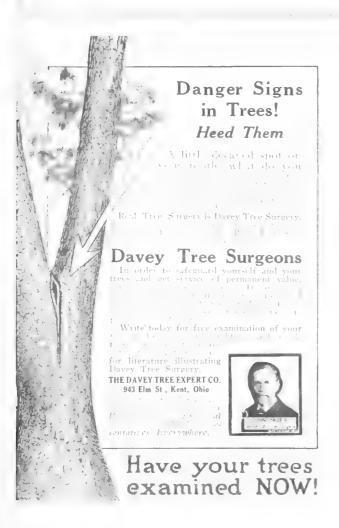
Gill, 25c.; half pint, 40c.; pints, 65c.; quart, \$1.00; gallon, \$3.00.

recognized as standard remedies for the control of the insects and plant diseases for which they are recommended.

For sale by the leading seedsmen throughout the country. If not obtainable in your community, send us your order direct and we will have it shipped to you from our nearest agency.

Aphine Manufacturing Co.

MANUFACTURERS OF AGRICULTURAL CHEMICALS Madison, N. J.







# 

Ask your dealer to play the latest Columbia double-disc records for you. There is a new Columbia record list of all the latest music, including the newest, popular dance hits, issued the 20th of every month.

Over a thousand at 65 cents—the standard Columbia price. The big Columbia record catalog contains more than 4000 records in every class of music, vocal and instrumental.

The Columbia Graionola at 885, as illustrated, is a striking example of Columbia supremacy. This model embodies the newest distinctive Columbia, feature—the individual record elector. With colinary record racks, 875—11 you have believed the difference in talking machines vias mainly one of appearance. hear this one. A beautiful, simple, convenient instrument with superboone cubities. Other Graionolas from 817,50 to 8500 and on very casy terms if you wish

# Columbia Graphophone Company

Box G 494 Woolworth Bldg., New York



Columbia Grafonola, with individual record ejector, \$85.

# OARD) ORANGA ORANGA





# If You Are Thinking of Building A Greenhouse

New York Boston

Very naturally we want to build yours. Can't we ar-

Cleveland

Rochester Toronto

Irvington, N. Y., Des Plaines, Ill., St. Catharine, Canada

((1))

# Tree Guards

If a horse gets at one of your trees, even for a few minutes, the damage is done. Your loss is irreparable, yet it could have been prevented.

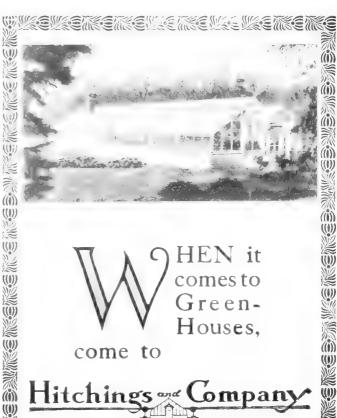
# Don't Take Chances With Your Beautiful Trees

Excelsior Rust Proof Tree Guards give full protection and do not detract from the beauty of the trees. The Guards last many years, because heavy galvanizing prevents rust. There are several styles—select the one that suits. Write us for Catalog J of Excelsior Rust Proof Tree Guards, Bed Guards, Trellises and Fence.

WRIGHT WIRE COMPANY

Worcester, Mass.





HEN it comesto Green-Houses,

come to

Hitchings and

General Offices and Factory-ELIZABETH, N. J.

kekekekekekekeke

New York 1170 Broadway

Philadelphia

R Life of the Committee Committee of the 


# All Varieties Thoroughly Tested

TO DO A CHARLING DAMAN COLUMN DESCRIPTION OF A COLUMN STATE OF THE ARREST OF THE STATE OF THE ST

T is the policy of Jas. Carter & Co. to thoroughly test every strain of flower or vegetable. Not until satisfactory results are shown by actual growing are they listed in the Carter Catalog.

That is why Carters Tested Seeds are so reliable and true to description.

If you have not examined the 1915 Carter Catalog—American Edition—write at once for your copy.



CARTERS TESTED SEEDS, INC. 111 Chamber of Commerce Bldg., Boston, Mass.

Branch at Seattle, Wash.
In Canada—133 King St. E., Toronto.
Branch of Jas. Carter & Co., Raynes
Park. England.

We Design and Furnish

# Plans for the Finest Landscape Work

If you are contemplating any extensive park or estate planting communicate with us on your requirements.

Our Nursery is located at Scarborough, N. Y., near the railroad station, comprising over fifty acres, and contains one of the choicest and rarest collections of shrubs and trees in the country. We have been awarded for the last three years, by the Horticultural Society of New York,

FIRST PRIZE FOR THE FINEST AND LARG-EST COLLECTION OF HARDY SHRUBS AND TREES.

We will take pleasure in sending our catalogue on request.

# F. R. PIERSON COMPANY

Main Office and Post Office, Tarrytown, N. Y.
Telephone, Tarrytown 48

THARGARE EXCURRINGUIDED DERIG AND DE AUTOREA PRODUCTOR RECONSTRUCTION DERIVED BOOK OF A FEAR AND DESCRIPTION DERIVED BOOK AF A FEAR AND A FEAR

# **BOBBINK & ATKINS**

יים או מונים מונים אל אה בחות מור ביו המונה הוביר המונים המידים ביו הניספים בב, יה מתנום מונים מאום המונים מאום ב

"World's Choicest Nursery and Greenhouse Products"

### FOR FALL PLANTING

Our various collections represent the highest standard of American Horticulture. By experience we know their Landscape value and respectfully ask your inspection before purchasing. We have every facility for prompt and careful execution and shipment of each order, large or small.

### **EVERGREENS**

Individually perfect Wonderfully complete. Plant in August and September.

# EVERGREEN FLOWERING SHRUBS

Including our wonderful collection of Hardy Homegrown Rhodoch adrons,

# ORNAMENTAL SHADE TREES and FLOWERING SHRUBS

Over 100 acres of our Nursery devoted to these

# HARDY OLD FASHIONED FLOWERS, PAEONIES AND IRIS

Every meritable plant in an uncommon assortment

# FRUIT TREES AND BUSHES

Dwarf, trained and Standards in all desirable varieties

## BULBS AND ROOTS

The cream of quality from every country

# HOMEGROWN ROSES

Our experience prompts us to encourage Fall planting for our Homegrown Roses. We have every variety you need.

OUR ILLUSTRATED GINERAL CATALOG No. 45 and autumn BULB CATALOG mailed on request.

We Plan and Plant Grounds and Gardens Everywhere
NURSERYMEN, FLORISTS AND PLANTERS

RUTHERFORD, NEW JERSEY

Tampia sau mandritain a de diministration de la 1115 a 1116 de la 2011

# Evergreen Trees

There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

# Trees, Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs,
Greenhouse Plants and Orchids.



POT-GROWN

# **STRAWBERRIES**

Ready for Delivery Write for Catalogue

# FRENCH BULBS

LILIUM-Candidum HYACINTHS-Selected White Roman NARCISSUS-Paper White Grandiflora NARCISSUS-Golden Spur NARCISSUS-Trumpet Major FREESIA-Refracta alba

COLD STORAGE

# LILY OF THE VALLEY

Dresden and Berlin Pips

WRITE FOR CATALOGUE AND PRICES

# W.E. MARSHALL & CO.

**BULB IMFORTERS** 166 West 23rd St., New York

# Planted largely on finest properties in groups of a hundred or more of each of the several

# Meehans' Mallow Marvels

are now a profusion of immense blooms in glorious shades of red, soft pink or white.

Pink at \$35 per hundred White at \$35 per hundred Red at \$50 per hundred Mixed at \$25 per hundred

### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65 Germantown, Phila.



# FIELD-GROWN CARNATIONS

**PINK** 

Enchantress Gorgeous Philadelphia C. W. Ward WHITE

White Enchantress Matchless White Perfection White Wonder

VARIEGATED

Mrs. B. P. Cheney

SCARLET Beacon

Commodore

WRITE US FOR PRICES ON WHAT VARIETIES YOU REQUIRE

# Charles H. Totty

MADISON, N. J.

# SEEDS OF PERENNIALS in Mid-Summer



19 Alphabetical pages covering all in detail, size, bloom, hardiness, etc., in our general catalog

Get another copy if mislaid

Try These (A) 12 pkts, seed, 12 best perennials (our selection) \$1.00 (B) 25 pkts s ed, 25 best perennials (our selection) \$2.00 The abor are regular size fackets, sold at Ive. each

# PANSY Vaughan's International Mixture

This is and always has been, literally, A WORLD'S BEST MIXTURE. It is one of the specialties that has established the reputation of VAUGHAN'S SEEDS.

Price, 18 oz., \$1.75;

Packet, 25:

# VAUGHAN'S SEED STORE

43 Barclay St., New York

31-33 W. Randolph St., Chicago



# DREER'S POT-GROWN STRAWBERRY PLANT

The best varieties, both new and old, and best methods of planting to raise a full crop of strawberries next year are fully particularized in

# Dreer's Midsummer Catalogue

Also Celery, Cabbage, and other vegetable plants. A select list of decorative plants, Palms, Ferns, etc.; Seeds of old-fashioned Hardy Perennials and other flowers for summer sowing. Seasonable Farm

Write today for a copy, FREE, and please mention this magazine.

HENRY A. DREER 714-716 CHESTNUT ST., PHILADELPHIA, PA.

# WINTER-FLOWERING SWEET PEAS

# WINTER-FLOWERING SPENCERS

*****	LDICIE	O 11 21	ui (o di bi (obito		
WHITE			LAVENDER		
mark to the state of the state	Per Pkt P			Pet Pkt P	er i Pkts
Bridal Veil. Pure white; one of the st	\$ 1 50c	\$2.75	Mrs. John M. Barker. Stor ed law rose, wings blue	0],	00
White Orchid. The well known what Mrs. M. Spanolin. Double whate	50c.	1,25 1,25	White ground  Lavender Orchid   Living a ground	. (D)	\$2.75 1.25
mis. m. Spanoria. Podate witte.	000	1.20	Lavender Nora. The left Lavens	500	1 25
ROSE AND ORANGE ROSE			Entriude north. In the Case In	11.11	
Orange Orchid. Standard orange, wing tak salmon pink	<b>\$1</b>	82.75	PINK		
Orchid Beauty. Lark rose, softus d with rang .	Ath	1.25	Yarrawa Bright too prior off, gut wings	4.1	\$2.75
APRICOT AND SALMON			Bohemian Girl A bright pick of it volly hed orange	\$ 1	2.75
Apricot Orchid. A pleasing apricot self	×1	\$2.75	Mrs. A. A. Skath Beritifu e i light pink	7(1)	1.25
PINK AND WHITE			BLUSH		
Pink and White Grehld. Similar to this timas Pink	5 ( te	\$1,25	Venus. Standard white, blicker and wrogs whate	50,	\$1.25
WINTERFIC	WERIN	JG GI	RANDIFLORA VARIETIES		

# WINTER-FLOWERING GRANDIFLORA VARIETIES

WHITE				CRIMSON AND SCARLET			
Buttonia Esta Esta Olatica Militaria de Linda	Pk1	(17	1 111		Pkt.	Oz.	14 lb.
Boddington's Extra-Early Christmas White Snowbird.	10c	11.51	\$1	Boddington's Christmas Meteor, Scarlet,	150	5 Oe	\$1.50
Color clear white  Boddington's Christmas White. Pine white profus	100	21	\$1	Flamingo. Color serred, car's	150	50c,	1.50
bloomer	100	35c.	8.1				
Florence Denzer. Pure white	10c.	51	\$1	LAVENDER, MAUVE AND BLU	E		
Watchung. Pure white	10c.	- Te	\$1				
PINK				Le Marquis, Color Princes, of Will Violet	150	7(1)	\$1.50
				Miss Helen M. Gould. White, standard lilac, marbled.	15c.	5.0e 5.0e	1.75 1.75
Boddington's Christmas Stella Morse Cramy buff standard, wings tinged pink	15c.	50e.	81.50	Miss Josey Reilly. Lable; very large flowers.  Mrs. Alex. Wallace. Flagender, very some	15e. 15c.	500	1.75
Mrs. E. Wild. Carmine or dark pink.	15c.	500	1.75	Mrs. Chas. H. Totty, Sky box, Lite	15c.	50c.	1.75
Mrs. F. J. Dolansky. Daybreak pink	15c.	50c.	1.75	Mrs. Zvolanek. Blue, vari gated	15c.	50e	1.75
Mrs. William Sim. Salmor purk	15c.	50c.	1.75	Wallacca, An excellent Livender viriety	15c.	50e.	1.75
Mrs. W. W. Smalley. Satiny pink	15c.	50c.	1.75	William J. Stewart. Blue - It	15c.	500	1.75
Mrs. Hannan. Deep rose pink	15c.	50c.	1.75				
PINK AND WHITE				DALE WELLOW			
Boddington's Christmas Pink. Earliest and best of its				PALE YELLOW			
kind	10c.	15c	\$1	Canary. An exceptionally good vellow	10:	, 50	\$1

# ARTHUR T. BODDINGTON COMPANY, Inc., Seedsmen

342 WEST 14<sub>TH</sub> STREET, NEW YORK

Incorporated 1911

ANT REW K. KENNEDY, Pres. and Treas.

1 - 4-1-02 bis , a section of contraction of the co

# KENNEDY & HUNTER SEEDSMEN

SEND FOR BULB CATALOGUE

156 West 34th Street One block from New York

"ONLY THE BEST"

 $S^{\text{CHEEPERS' High Grade Bulbs are BETTER, have more vitality, are always TRUE TO NAME.}$ 

SCHEEPERS' Darwin Tulips were awarded four of the five FIRST PRIZES at the recent Nassau Horticultural Society Darwin Tulip Show.

We are successful because we have THE GOODS and we count the Highest Class Gardeners among our satisfied customers.

JOHN SCHEEPERS & CO., INC. 2 Stone Street, New York

The Administration and including a second of the control of the co

# COMPETENT GARDENERS

HARRAMANIAN MANAKATAN BERAMAN MANAKATAN MENUNUKAN DALAM MANAKATAN MENAKATAN MENAKATAN MENUNUKAN 
4 The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

# PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

Manufacture was manufacture and an experience of the control of th

NEW YORK CITY

# Carnation Plants

ALL LEADING VARIETIES WRITE FOR PRICES

AMOHAT GREENHOUSES

MAMARONECK, NEW YORK

SAMUEL J BATCHELOR Manager

# The Contents--- August, 1915

	Page		Page
Things and Thoughts of the Garden		Among the Gardeners	369
By the Onlooker	351	American Rose Society	
Rock Gardens and Rockeries		Gladiolus Show at Atlantic City	
By Arthur Smith	353	American Dahlia Society Show	370
The Busch Gardens, Pasadena, California.		American Association of Park Superintendents'	0=4
By Robert G. Fraser	354	Notes	371
	<i>J</i> J7	The Complicated Park Situation of Chicago .	070
Work for the Month of September	356	By J. H. Prost	
By Henry Gibson		Concrete for the Country Home	375
Unique Model of a Country Estate		Preparing the Hot Bed Soil	375
Making a Rose Garden		The Gasplant	376
Cultivation of Dwarf Fruit Trees	358	Watering Plants in Pots	377
Cavity Treatment of Trees By F. A. Bartlett	359	A Combination of Honeysuckle and Clematis .	
Aquatic Plants for Every One's Garden .	240	The Question of the Gardener	378
By Samuel D. Zehrung		Queries and Answers	379
American Sweet Pea Society's Show		National Associations	380
The Proper Turf for Golfing Greens	362	Local Societies	380
Poison Ivy		Garden Clubs	381
Mushrooms and Toadstools	364	Horticultural Events	382
Our Native Birds Protectorate	365	Lenox, Mass., Horticultural Society	382
Producing Natural Effects in Conservatory	0	New Bedford, Mass., Horticultural Society .	
Planting By W. W. Ohlweiler	366	New London, Conn., Horticultural Society .	
Editorials	368	Menlo Park, Cal., Horticultural Society .	383
The Late Charles L. Sheppard		Oyster Bay Horticultural Society	
The Late David Rose		Nassau County Horticultural Society	
National Association of Gardeners' Notes .	369	Westchester & Fairfield Horticultural Society .	385

# STUMPP & WALTER CO.'S CATALOG

# BULBS FOR AUTUMN PLANTING

Complete List of New and Standard Varieties, Tulips, Hyacinths, Daffodils, and other Bulbs. The list comprises many of the best introductions of recent years. Many of the varieties that have won first prizes at the Flower Shows-all of the usual S. & W. Co. Quality Standard.

OTHER SEASONABLE NEEDS FOR THE FARM, GARDEN AND LAWN ARE LISTED

If we do not have the pleasure of having your name on our list, please write, asking for catalog

NEW YORK CITY

# GARDENERS' CHRONICLE

# OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Herticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

AUGUST, 1915.

No. 8.

# Things and Thoughts of the Garden

By The Onlooker

I cannot get away from them -they crowd in upon my mind, those Sweet Peas of Newport. There is only one Newport when Sweet Peas are spoken of. But the gallant men of Rhode Island's fashionable watering place were snowed under, or snuffed out or fogged out, which? No need to ask the Newportians; they would shout like thunder, "It was the fog." Even on the eve of the exhibition, which took place July 15 and 16, the streets around the harbor were dim and misty as the penetrating chilly curtain of vapor, ghost-like, stole in and around the street corners. That such superlative Sweet Peas were produced under these very trying conditions was greatly to the credit of the local growers. They were beaten by the men of Lenox, but with honor.

Giant strides have been made in two short seasons. It may be safe to say that in 1913 the Sweet Peas at our exhibitions were what would have been considered second rate among the growers of the inner circles of the Sweet Pea cult in England. Today we can load the tables with blooms of the highest quality, on stems 16 in., 17 in., 18 in. long, bearing threes and fours every time, blooms big, heavy, bright and clear in color, unblemished by the weather or by insects, something to look at and admire, which make we lesser combatants of the ring stand in awe of. Hurrah, then, for Jenkins, and if, in some garden at present unknown, an equally unknown combatant sits planning and dreaming of high and mighty conquests, not upon fields of battle, but in the pleasant exhibition halls, and if in the not far distant future he comes forth and triumphs over the redoubtables of today, they and all of us will laud and welcome him, for healthful competition and the zest that accompanies striving, would decline and pass away but for the "new man," the black horse of the race, the runner up in the game.

This Sweet Pea showing, what is it? "I'm not a Sweet Pea crank yet," said a friend to me at Newport on the morning of the exhibition, and but for the fact that he was certainly a more capable and ardent gardener in many other lines, I would have had to feel pity for him. We cannot all raise a love for a given flower, even for such a truly charming one as our dainty Sweet Pea. Rather fancy, too, he had a soft spot in his heart for Roses and Gardenias, not to mention his house of Cattleyas in superb condition, and a collection of Adiantum Farleyense, which the present writer has never seen equalled in point of health, symmetry and general beauty. Each plant was a beautiful specimen, some in big pots, some in little ones, the big ones raised well above the

stage, which was covered with sphagnum and kept damp, the lesser ones on the stage. Yes, let us each have some choice specialty; one can hardly make a "specialty" of everything, and indeed specialism obviously implies concentration. One man cultivates Chrysanthemums, or Carnations, or Roses, or Phalænopsis, or Grapes, or vegetables better than his neighbors, and once he earns fame in some one direction he does not relish being beaten. So the standard of cultivation is upheld. One man's achievements point the way for others and exhibit the possibilities of the particular subject in which he excels. Until Roland grew his huge Acacias and exhibited them, it is safe to say that few among us valued them or appreciated their merits sufficiently. Have Bieschke's Hydrangeas (Hortensis type) not shown us just what this noble plant is capable of? A dozen other things might be mentioned a crop of Grapes, a plot of vegetables, a superb Amaryllis, a group of Callas, a table of Primulas, a pot of Easter Lilies with sixteen flowers on one stem, giant Mignonette or spikes of double Stocks better than any other body's—these are the things that inspire and please us, and make floriculture the art it is. Therefore, health and power to the specialist.

Our specialist, however, would not be a worthy gardener were he to neglect the other sections of his charge. It depends on the man himself. Some men do neglect other parts of the garden or other plants in their eagerness to attend to every detail of one or two pet things. Not a great many do this, and I make bold to say that no gardener would pursue the cultivation of a given subject against the wishes, or without the encouragement in some degree, of the owner of the garden or the person or family to whose pleasure and economy he administers. The fact is a gardener usually begins in a quiet way on a specialty for any one of a dozen reasons. His success leads him on. In the meantime, the garden owner takes notice of his work, nine times out of ten enjoys the results, enters into the spirit of it, encourages it, and if exhibiting is the climax, shall we doubt that he or she does not feel pleasure in being a winner? (Happily the names of non-winners need not be disclosed.) That is where the gardener suits himself as to what his specialty shall be. But if the owner is not only a patron of gardening. but is also the "boss," knowing plants, their needs, their ways, their merits, and having decided tastes, such a one will choose the specialty and say what it will be. This is right and proper. If the gardener objects, hangs back, makes a botch of what it is desired should be specially well attended to there can only be one solution in the

CHIN Y

long run. Of course, if a man tries and honestly fails, that's another matter, and we gardeners all know the innumerable difficulties that bestrew our path at times, be we ever so willing. Yet, "if at first you don't succeed," perhaps you will the next time. Anyway, you'd better!

But to hark back to Sweet Peas. What would you call the one best variety of the year? My own choice is Royal Purple. It is a fine bold flower of graceful build, comes quite true, no rogues so far as I have seen, and the color is so distinct and pleasing. After this, what's the next? If the choice were based on Newport's show, the award would fall on Burpee's New Vermilion Flake, a bright, highly attractive rosy flaked variety, very captivating. One hopes it is a good doer and vigorous. Florence Hinton proved to be the gem of whites. Where was King White? Has it fallen down this year? Some folks cannot get it to grow, and certainly it has not been a shining star in the writer's own small collection. Loyalty was very finely shown all through, while Robert Sydenham (orange) made many friends, and will be greatly in demand another year. Illuminator, too, was one of the best of the carmines. Of the cream varieties there were good bunches of Dobbie's Cream, Clara Curtis, Isabel Malcolm and Primrose Spencer, with little to chose between them. Jessie Cuthbertson is seemingly the leading red flaked variety, leaving America behind, although the latter has brighter red stripes and is the fancier flower of the two. Lady Evelyn Eyre is the finest light blush pink. Mrs. C. W. Breadmore, Elfrida Pearson, Mrs. Routzahn, New Margaret Madison, Rosabelle, Hercules, Nubian, Scarlet Emperor, Mrs. Hugh Dickson and Mrs. Cuthbertson were also among the first varieties on view. Burpee's Fiery Cross (scarlet) won the silver medal this year, while the same firm had certificates for President (crimson) and Cherub (cream and pink), two excellent flowers.

Whether Sweet Peas in tubs will be as successful in a hot, dry year as they have been this year, which has been notably cool and showery, is scarcely to be expected, but many small growers will assuredly be testing their skill another year with this form of cultivation. For setting about on terraces or other prominent places these pyramids of bloom are decidedly effective and beautiful. The competition was good, and there were many specimen tubfuls on view. The plants were raised in 5-in, pots and set out in April in the tubs, which were about 20 in, wide and rather deeper. Cow manure to a depth of half a foot was packed in the bottom and a good loamy compost used. Tall birch branches were employed for supports.

Lately I have been taking an interest in the Pinks. They are a fine family of plants if we include the Alpine species that are so adaptable for the rock garden, such as superbus, cæsius and glacialis. These ought to be made use of far more. Then there are the Cushion or Grass Pinks, otherwise called Scotch, Hardy, Everblooming or Pheasants'-eve Pinks. These are all varieties. whether they be double-flowered or single, of Dianthus plumarius. This is the parent of all the Pinks (but not the Carnations, which also sometimes go by the common name of Pinks. In Scotland, and in the hands of several English nurserymen, these hardy Pinks have been much improved and are great favorites. They are among the easiest plants to succeed with, given a fairly heavy soil that retains moisture, but not stagnant moisture. They are propagated either, by layers or pipings, the layers being taken now (August), the pipings (or cuttings) in April. While the singles make a bright show and are very free, it is the

improved double varieties either in the white or "laced" forms that deserve most attention. In the latter the red coloring is in zones and as edgings upon the petals. The flowers are full, fragrant, with serrated or fringed edges, and freely produced on stems 1 ft. high or so. Seedlings can also be raised, but for named varieties the layers are relied upon. A perpetual flowering strain has been added during recent years, and for forming an edging line to the hardy border they are greatly in favor with many good flower gardeners. In addition to these true perennial Pinks there are the varieties of the China or Indian Pink (Dianthus Chinensis). In milder localities such as near the sea or in light soils in sheltered positions, some of these linger through the winter, especially if protected a little with dry straw or leaves, and may, and often do, produce a blaze of color the succeeding summer. There is, of course, the variety latifolius atrococcineus, with much fringed, fiery scarlet flowers of large size, which is looked upon as quite hardy and lasting two or more seasons, but it seems to me to be simply a form of China Pink. The majority of the varieties of D. Chinesis, at any rate, are best treated as annuals by being sown in a warm greenhouse in pans in February, the seedlings pricked off into boxes, 4 inches deep, and brought along in a frame or cool house, safe from frost, until it is time to bed them out in colonies, in a sunny spot, in May or June-May preferably. They begin to bloom early in July or before and are among the gayest of summer The Marguerite Carnations can be treated likewise and will flower at the end of July and continue for the remainder of the summer. A good strain will produce 75 per cent, of excellent double flowers from seed. They can be lifted in fall and be potted for flowering in the greenhouse.

3,4 3,4 3,5

It will be interesting to observe whether Mr. Smith, in his list of plants suitable for the rock garden, will mention any or many of the Oxalises. The thought occurred to me when I saw several trials of them at the Fordhook Farms of W. Atlee Burpee & Co., that here were plants that could quite well be made use of for this part of the garden. True, we have Oxalis enneaphylla, the pretty glaucous leaved species, as one of the favorites now, but speaking generally the genus has not had a large place in the rock-garden. There is no reason surely, why nice masses of such kinds as floribunda, rosea, rosea delicata, valdiviensis, and others of the herbaceous or annual types could not be sown and flowered in prepared positions, or here and there in pockets. As a rule there are plenty of spaces that require filling. They are dwarf, grow freely with a modicum of care, bloom well over a long period in midsummer, and would occupy somewhat the same position here that the mossy Saxifragas do in European rock-gardens. Any evidence to the contrary will be only less welcome to evidence supporting my views.

Most of the Oxalises come from dry-land countries, as Mexico, Chili, South Africa and Malta.

\* : :

Reference to Mexico brings to mind the fact that all of it is not dry. This is the native land of our popular cultivated Dahlias. There they grow rank and tall, usually in cool semi-shaded places, or positions screened from the burning midday sun, and with their roots in moist, very freely drained soil. The evolution of the double Dahlias, the cactus varieties, pompons, Peonyflowered collarettes and other types from the species D. variabilies and D. Jaurezii is an interesting story. By the way, the cutting down of Dahlia stems has not been necessary this year, although it was done as a matter of course by some growers. The object of such cutting back

is to have fresh flowering growth for the cooler days of September, when Dahlias are most expected and in request. Why is it that the neat-growing pompon-cactus or miniature cactus varieties are so entirely neglected? They are the ideal for floral work and for the smaller gardens.

Visits to gardens in various Atlantic States recently has impressed upon me the richness and wealth of material we have at our disposal for summer effect. There is no reason why American gardens ought not to be resplendent from May until November. Bull's, roses, perennials, annuals, greenhouse stock that can be bedded out, shrubs, climbers in very great variety, hardy ferns, alpines—all these combine and add to the resplendency. But there is something left unmentioned which calls for more care, or as much care, as any of these, and that is the lawn. The lawn in America is one of the especial tests of a gardener's patience and resourcefulness. Weeding, watering, mowing, rolling, sweeping, top dressing with rich soil—these are among the operations that demand attention in turn, the watering and the mowing very regularly in any of our ordinary summers.

### ROCK GARDENS AND ROCKERIES.

By Arthur Smith, Pennsylvania, (Continued from July Number.)

In planting, it should be the aim to get the rockery full of life as soon as possible, allowing sufficient room for the plants to spread. Practically all alpines thrive best when growing close together, although as some spread more than others they require more room; the *Dryas octopetala*, for instance, which is found both on the Swiss Alps and the mountain of New England, has, for alpines, rampant trailers when it does well. There are two other species of Dryas, native of alpine America, *drammondi* and *integrifolia*, neither of which have such a trailing habit as *octopetala*, but the latter is considered most beautiful.

After planting, the bare soil around the plants should be covered with stones or pieces of rock to keep the ground cool while the plants are establishing themselves. Growing alpines require perhaps, even more of that patience which one must have in all horticultural matters. Some species may take several years to become established, so one must not throw a plant out because it does not thrive immediately, for so long as there is life there is hope.

In connection with the plants to use, one can seek to have as large a collection of species as possible; to create as it were a museum. This method is very interesting and one which has been adopted, for instance, at the famous rock garden at Wisely, England. The main object of the latter is of course botanical and educational, and for the studying out of methods for the successful cultivation of those alpines which hitherto have been difficult to get to thrive, or which have positively refused to grow at all in captivity.

From an aesthetic point of view, however, fewer species and the massing of a number of the same species together, is better than single specimens.

As regards the selection of species, nurseries in this country have hitherto made no attempt at the cultivation of alpines. It is true that in some lists of hardy plants a few are designated as being "suitable for rockeries," but these, with one or two exceptions, are not true alpines and the majority of them will thrive also in the situations that hardy plants are generally planted.

Where one has a naturally rocky place that requires

beautifying much can be done with these "suitable" plants, as most of them enjoy the coolness to their roots which the presence of rocks near them give. For this latter reason the native hardy ferns can be used for this purpose, of which there are many species that, given a rich, cool soil, will do well in full sun.

While there are, as before mentioned, some species of alpines that dely all attempts at growing them, the majority can be successfully made to thrive. The greatest trouble is with our winters. In their native homes the seasons create two distinct conditions, a summer of three months, and a dormant period for the remainder of the year during which they are continually covered with a mantle of dry snow. Alpines are never killed by cold winters but by wet ones. As was noted in a previous issue of the Chronicle, effects of rain and moist atmosphere during the dormant period may be prevented by covering them with sheets of glass. Some erect a glass house over their alpines, which is so constructed that it can be taken apart and stored away each summer. At the above mentioned Wisely a permanent structure has been placed over the more delicate species, but this would obviously be out of place and unsightly in a private garden.

One of the secrets of success with many alpines is to give them an annual top dressing or "earthing up" with compost and at the same time pegging the branches down. They are constantly being subjected to the same kind of treatment by nature, for in spring the melting snow carries down earth, grit and stones on to them. Species having a growth like Daphne, Iberis and Alyssum, to give instances of plants well known, especially require this treatment. Some may be unaware that these species are true alpines, as they are common to our hardy borders. But it is within the experience of most people that in that position they become in a few years "leggy" if they do not actually die out. This is caused by their habit of growing out of the soil, which they no doubt have in consequence of having become used to the natural topdressing given them by the melting of their own mountain snows. They have learned that if they did not rise up they would be buried under the annual deposit.

To give a mere list of alpines that have been successfully grown would be meaningless and useless for all practical purposes, unless accompanied by detailed descriptions and requirements. This would obviously take up more space than can be allowed for in an ordinary article.

Perhaps the most interesting and instructive method of working up a collection of alpines is to go to the mountains and collect them oneself. There would also be in this course the distinct advantage of seeing something of their natural habitat. If possible, seed should be gathered as well, as there are some which, while they do not take kindly to removal, may be successfully grown from seed.

In these cursory notes the subject has been by no means exhausted, but it is hoped that sufficient has been stated to be of some assistance to those who have had no opportunity of gaining experience in this branch of gardening.

While it is perhaps unnecessary, it may be as well to mention that the word "alpine" as used here, does not designate plants which only grow upon the Alps. Alpine conditions exist more or less all over the world, from mountains that rise out of tropical plains and on towards the regions of perpetual ice. In the latter alpines are found at sea level.

# The Busch Gardens, Pasadena, Cal.

By Robert G. Fraser, California

The construction of the Pusch Gardens was begun November 30, 1904; the first work done, because of the necessity to get grading started, being the removal of boulders and brush and the forming of trails to get the teams on to the ground. In many places fills had to be made from six to fifty feet in depth, the earth being taken principally from what is now known as the Sunken Gardens, the dugouts being as low as a hundred feet at times. The condition of the ground was such that dynamiting had to be resorted to frequently in grading. The work of grading was largely done by teams, with Fresno Scrapers. The heaviest work was done in the Upper Gardens, the acreage of which comprises about forty acres.

The Lower Gardens, which cover about thirty acres, were also graded at heavy expense, although this expense was not nearly as great as in the Upper Gardens. This portion of the park is built along natural lines. Here are a great many live oaks which assist in carrying out the effect desired. The shape of the Lower Garden is much like an amphitheatre. It is staged with an artificial lake which covers about an acre of land, and canvons made from a higher elevation serve to convey the water, suggestive of a natural source of water supply; many winding trails lead among the live oaks to resting places, such as arbors and summer houses; about ten acres have been set to lawns kept in a condition suggestive of rural swards. The Lower Gardens abound in animal life: turkeys, pheasants, peacocks, chickens, pigeons; slicep, rabbits and ground hogs which are a constant source of delight to children. Here, also, are groups representing different stories from the Grimm's Fairy Tales. These were sent especially from Germany by Mrs. Busch for the express purpose of entertaining visitors—principally children. They represent the Fishermen, Snow White and the Seven Courtiers; Ashputel, Red Riding Hood, Gretchen and Hansel, and others that are favorites among the little folk.

The Upper Gardens are more conventional in their Twenty-five or thirty acres of this land is covered with lawns, the remainder being set out to flower beds, shrubs and trees of all kinds and varities suited to our semi-tropic climate. Here grow a great many citrus fruits—navels, tangerines, grape fruit, lemons, loquats, etc. Here are also apples, peaches, apricots, prunes, the

bread fruit tree and other tropical fruits.

Including both gardens, there are fourteen miles of

drives and trails in the park.

All of this work has been planned and carried out through the generosity of Mr. and Mrs. Adolphus Busch whose sole desire is giving pleasure to the general public

as well as to themselves. The park is open to all who may wish to visit it and while away many pleasant hours. Visitors are welcome daily from nine in the morning until five in the evening. At night the gardens are lighted by electricity. The lights, gleaming out from arbor and tree are exceedingly effective and make the Upper and Lower Gardens even more beautiful at night than in the daytime, especially as the rays strike the water falls. It is at this time that the miniature mill of Banbury Cross in the Upper Gardens, is very attractive with its big water wheel and flood gates.

During the building of the Gardens the force of men employed often exceed a hundred. Even now the upkeep of the place requires twenty-two men constantly employed in the winter and about thirty during the summer.

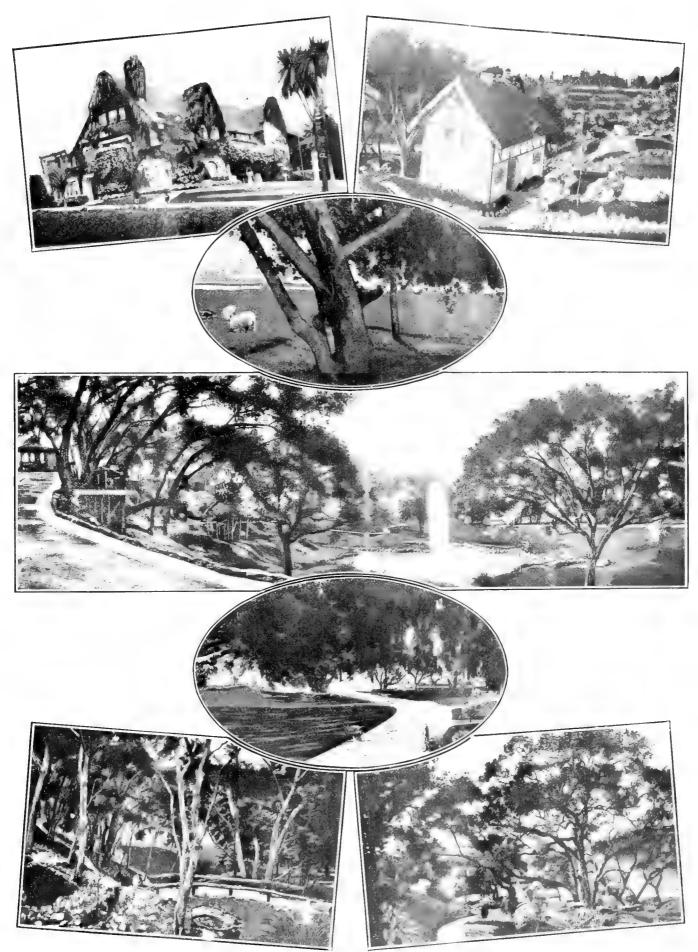
When Mr. Busch bought these grounds, it was prophesied that it would be an impossible task to turn them into a thing of beauty, for they were a waste of gravel, stone and sand, with here and there a patch of riotous growth; but Mr. Busch proved that "out of the coarsest rags the finest silks can be made" if you only have determination and an artistic eye.

The gardens being of a very hilly nature, a vast expenditure was necessary to protect them against damage by storm waters during the winter. This required thirtyeight carloads of storm water piping in sizes ranging from four inches to twenty-two inches in diameter, to carry off this water. Another heavy expenditure in the Lower Garden came from reclaiming a great deal of the acreage and making a new channel for the Arroyo Seco River which is dry during the summer months, Lut carries an immense flood down from the mountains, where it has its source, during the winter rainy season. This has been made to serve as a drainage for the Busch Estate. In changing its natural channel, a great deal of grading and filling in was required, besides the building of reinforced cement walls to confine its flooded waters. This river bed has now been turned into one of the beauty spots of the estate and has reclaimed many acres of what is now alfalfa land used as pasture for the sheep and a run for the turkeys.

No single city in California could adequately supply water to such a large estate—especially during the dry season. The Pasadena Water Department, therefore, could not supply Mr. Busch with the amount of water required to maintain these extensive Gardens; so Mr. Busch had to buy some fifteen acres of land about a mile east of the gardens, put down wells and install a pumping station. This furnishes to the Gardens daily one hundred miner's inches of water which is propelled by electric pressure against a resistance of forty feet.

ALIFORNIA—The general impression is that it is a land of heat and aridity, but as a matter of fact it has a varied climate—hot and dry in the south, agreeably cool in the middle section, with a mild winter season, while in the highlands of the north the great forests of evergreens prove that moisture and a very moderate temperature exist, without which they could not flourish. There can be no doubt as to the horticultural possibilities of California. Within twenty-five years it has become one of the chief flower and vegetable seed raising regions of the world. It is one of the richest fru't lands on our continent. Wealthy people from many parts of America are making themselves beautiful homes there, and the delightful winter climate of so much of California annually attracts thousands of visitors. From a botanist's and gardener's point of view it is one of the most remarkable lands that can be named. All the best plant, tree and shrub introductions of the Mediterranean region of China, Japan, Chili, New Zealand, Australia and South Africa have been introduced and flourish. Subjects that we in the east can only attempt to grow in greenhouses are here the favorite outdoor shrubbery or bedding plants. Think of its immense vineyards, its olive groves, orange, peach and prune orchards, its pineapples, avocados, apricots, cherries, figs, and nuts. It is the home of many of the finest of our annual flowers, such as Eschscholzia, Clarkia, Nemophlia, Platystemon, Gilia, Mimulus, Lupines, Coneopsis, which bloom from February until April, according to the latitude and altitude in which they grow. From the cacti of the south to the Big Trees near San Francisco, and the great pines upon the mountains of the northern tracts, California has a place for almost every class of plants. The hills afford a plentiful supply of water even in the hotter southlands, and with the skill of the growers and a reasonably good soil, even the hitherto drylands are being and have been converted into rich orchards and gardens.

During this mont



All Ws of THE Abot PHES BESCH ISTAIL PARALL  $-i(-\lambda, -1) \cdot OR^{\infty} T \lambda$ 

# Work for the Month of September

Conducted by Henry Gibson, New York.

THE FLOWER GARDEN.

Window boxes, hanging baskets, tubs and similar devices are now so full of roots that the soil is about exhausted, and to keep up a succession of bloom frequent applications of liquid manure should be given. Flower beds and borders are at their best now and a special effort ought to be made to maintain a tidy appearance. Decaying leaves, flowers, weeds, and other litter should be picked up at least once a week. Grass edges need to be kept trimmed and the lawn mowed as occasion requires.

The propagation of bedding plants should be attended to as soon as possible now. It is always advisable to take cuttings of tender subjects such as Coleus, Salvias, ageratum, etc., before the cold chilly nights set in. Geraniums may be left until later but even these should

not be caught by frost.

The handy flower border can be rearranged at this time, and new beds may be established. Early sown perennials are now large enough to set out into permanent quarters. Young plants of Hollyhocks, Foxglove, Gaillardia, Sweet Williams and Clove Pinks, if not transplanted before the last week of the month are better left undisturbed until next spring.

Old established plants of Anemone Japonica and

Tritoias are best moved in the spring time.

Most kinds of evergreens may be planted this month. Their success, however, depends on favorable soil conditions; as long as the ground is damp and free from frost trans-planting is safe.

Privet beech, thorn and other hedges should receive their final clipping without delay. Very little more growth will be made this year and by clipping now a neat, tidy appearance will be maintained for the rest of the season.

Lawns may be re-seeded if needed, and new ones established. Roadways, paths and walks that intersect a new lawn need to be edged with turf to protect the young grass when it comes up. Gravel and other garden paths made now will have a chance of becoming settled and well trodden before frosts come.

THE VEGETABLE GARDEN.

Potatoes should be dug as soon as they are ready. If you have a cool place to store them, they are better out of the ground this month. Spinach, turnips, radish, and any quick maturing crops may still be sown outdoors. Lettuce, cabbage, cauliflower, and parsley should be planted in cold frames. Don't let up in the fight with the weeds. Here and there you may have a patch that has matured its crop, but do not allow the weeds to make headway on it. Buy a bushel or two of rye, and as fast as these spots are "cleaned up" rake them over and sow the rye broadcast. Just enough loose soil to cover it and let it germinate is all it needs. It will come up quickly and not only keeps down the weeds, but will furnish an abundance of humus to the soil. Moreover, it will save "washing" of the soil by heavy rains, and prevent a great deal of plant food from being wasted.

FRUIT GARDENS,

All runners should be kept off strawberries and cultivation persisted in to prevent the growth of weeds. Young plants of strawberries that were potted up last month may still be set out. Apples, pears, and other fruits should be gathered in dry weather and placed in a cool, airy fruit room, as they are ready.

Peach trees need to be carefully examined for borers.

THE GREENHOUSES.

Chrysanthemums.

In last month's notes we made some reference to the feeding of chrysanthemums. This is usually done when the buds have set, and while it may be a good practice, yet we believe that, generally speaking, chysanthemums are very much benefited by judicious applications of stimulants long before the buds have formed. Of course the extent to which feeding will prove beneficial to the plants before the bud shows will depend a good deal upon the quality of the soil they were potted in. Every application of water takes away a certain amount of plant food and to keep a chrysanthemum growing, with its roots confined within the limits of an 8-inch pot until the buds set, without occasional feeding in some form or other, is very much like giving a boy his breakfast and then starving him until he becomes a man, and then try and feed him up.

Feeding after the buds set is a very good criterion for the amateur to go by, but the professional grower can obtain better results by the judicious use of stimulants as soon as the pots are well filled with roots. Don't go to the extreme with feeding, or a rank heavy growth with misformed and aborted flower buds may result.

### Bouvardias.

These early winter flowering plants are quite tender and should not be exposed to anything like a freezing temperature. They are better either benched or potted up now that we are liable to experience a frost any night. Endeavor to lift the plants with all the ball possible, thus preserving the fibrous roots. When planted, soak them well with water, spray freely overhead as long as the hot weather prevails and shade from direct sunshine until they become established. A minimum temperature of 60° is what suits bauvardias.

# Genistas.

These should be placed where they can have protection during frosty nights. Genistus need to be kept as cool as possible, without frost. If no protection is to be had outdoors, move them into the coolest house, where, during the winter the temperature should not exceed 45° at night.

# Decorative Foliage Plants.

Now that the sun is losing some of its power, croton palms, ferns and other foliage plants may have more light admitted by removing some of the shade from the glass. It is advisable to ventilate freely on all favorable occasions so as to harden the plants up as much as possible, previous to the coming of winter.

Attend to sponging, for scale and mealy bug, go over each plant carefully and see that none are allowed to be

overlooked.

### Summer Flowering Bulbs.

Almost all summer flowering bulbs require a season of rest. Such subjects as achimenes, gloxinias, gesneuas, tuberous rooted begonias, etc., as they pass out of flower should have water withheld so as to allow the bulbs to ripen up. They may be placed in a dry corner of the greenhouse where they are not liable to get much water, or they may be put into a frame and covered with sash until frost makes it dangerous for them to be left outside any longer. When this occurs, they may be laid on their

# UNIQUE MODEL OF A COUNTRY ESTATE.

A feature of the last Easter display at Phipps Conservatory, North Side, Pittsburgh, was a country gentleman's estate on a miniature scale.

The space covered by the exhibit was 14 x 26 feet, and was constructed by the laying of planking over part of the tank in the aquatic house. The planks were covered with soil and sown with grass seed from which a luxuriant crop resulted.

The residence seen in the illustration in the extreme rear centre was well constructed. Minute attention was paid to the various details, not only in the residence, but to everything connected with the entire estate.

The rustic house on the lawn, at the right of the residence, was made of bark and twigs, and had seats inside on which the dolls can be seen sitting.

The fountain in the immediate foreground was stocked with gold fish. The spray was run through volcanic rock Pansies and Antheneum border was quite effective. A tufa stone rockery extended across the rear of the

estate, and sufficient ferns and vines were placed among

them to partially conceal the stones.

The shrubbery used in the rear of the residence were Roses, Lilacs, Leutzia's, Lemoinia's, Weigela's, Hydrangea's, Tradescantea's and English Ivy, while at the rear of the rockery, there was a massive mound of Cineraria

The model was constructed by James Moore, gardener of Phipps Conservatory.

# MAKING A ROSE GARDEN.

Good exposure to the sun, the proper protection from prevailing winds will do much to make the rose garden a success. While a location with a full-day sun exposure is much to be preferred, it is not absolutely essential, and where a choice must be made



MODEL OF COUNTRY GENTLEMAN'S ESTATE ERECTED IN PHIPP'S CONSERVATORY, PITTSBURGH, PA.

(Tufa stone), while on the surface of the water you can see the miniature swans.

The handy man on the estate can be seen to the rear left of the fountain, where he is busy cutting the lawn, his rake being handy.

The barn to the left of the residence was also true to detail, chief of which were the sliding doors at the entrance, and the block and tackle on the second floor.

The old pump that supplies the barn can be seen at the left of the barn.

The kindergarten classes from the public schools were brought to view the display, and it was a difficult task for their teachers to draw them away from this feature

The plants used along the border of the driveway and walk were Eckeveria (Secunda Glanca). Those used as trees in front of residence are Junipers Virginiana, and they answered the purpose splendidly to carry out the impression of being ornamental lawn trees.

The flower beds at each side of the fountain made up of

it is best to give roses the morning sun. Beds should not be located near trees or shrubbery. Roses are heavy feeders and for their best development require an unusual amount of fertilizer; when planted near trees or shrubbery, the roots of the latter deplete the soil of nourishment, with the result that the roses suffer. If, however, planting in close proximity to trees and shrubs is unavoidable, it is advisable each year to dig a trench (about a foot wide and 2 or 3 feet deep) around the rose bed and fill with wellrotted cow manure. This procedure will tend to prevent the roots of shrubs from actually entering the rose bed. Sometimes a concrete wall is constructed deep enough to prevent this encroachment.

Roses usually do well in any good garden soil, but better results are obtained if considerable care is exercised in the preparation of the ground. Roses require a heavy, well-drained soil. To obtain this, the area to be used for a bed should be dug out to a depth of from 18 inches to 2 feet, and if the drainage is not

good another 6 inches should be removed and this space filled with fine broken stone, brick or old flower pots. Upon this porous stratum 6 inches of well-rotted cow manure should be placed, and finally sufficient heavy soil to finish the bed, raising it not more than 3 inches above the surrounding grade. This latter layer should, if possible, be top soil (including sod) from an old pasture. After making the bed it should be allowed to settle for a week before the

planting is begun. Roses may be set out either in the fall or in the The spacing depends very largely upon the variety; tea and hybrid tea varieties may be planted about eighteen inches apart, but hybrid perpetuals, on account of their more vigorous growth, should be spaced at least 2½ feet, and ramblers eventually need about 4 feet. In any case an eight-inch margin from the edge of the bed should be allowed. Where potted stock is being planted, the ball of earth should be placed with its upper surface about 2 inches below the soil; fieldgrown stock may be set 2 or 3 inches lower than its former position in the nursery. The holes for receiving the plants should be large enough to admit the stock without bending or crowding the roots, the soil should be firmly packed around the roots, and the plants thoroughly watered immediately after planting. All stock should be so pruned that but two or three buds remain on each shoot—the upper bud, in each case, pointing outward.

Rose stock may be either grown on its own roots, or grafted or budded. It may be well in this connection, however, to call attention to certain disadvantages which attach to budded stock. In general, budded stock is more easily killed in severe winters than is stock grown on its own roots, and in addition the shoots which invariably spring from the parent stock frequently suppress the scion unless cut away. On the other hand, there are varieties of roses which it is impossible to grow satisfactorily unless they are budded on to a hardier stock.—From Missouri Botanical Garden

Bulletin.

# WORK FOR THE MONTH OF SEPTEMBER.

(Continued from page 350.)

sides in a dry shed and later on shaken out, and stored in boxes where the temperature does not go below 50°.

Miscellaneous Plants.

No time should be lost in dealing with Roman Hyacinths, Paper White Narcissus, Duc Van Thal Tulips, and similar early flowering bulbs that are intended for Christmas use. Others may be potted for a succession.

Single Violets may be planted if not already done. Early planting is advisable where frame culture is adopted, so that the plants will produce a crop of blooms before cold weather sets in.

Primulas, Cinerarias and Cyclamen that have been grown in cold frames should be brought indoors this month. Pot on such as require it. Cyclamen should be ready to put into their flowering pots. Keep them clean by frequent spraying and fumigation. Stevia and solanums are tender plants and should be lifted and placed in a cool house before cold nights overtake them.

# CULTIVATION OF DWARF FRUIT TREES.

In his lecture on dwarf fruit trees before a gathering of gardeners who congregated at "Homewood," New Rochelle, N. Y., to inspect the fruit gardens there,

Nicholas Butterbach, who is superintendent of the estate, stated that the trimming of dwarf fruit trees is resorted to, first,—to give the tree a regular form and to evenly distribute the sap; second,—to force the tree to bear; third,—to keep the tree in bearing condition; fourth,—to get bigger and sometimes earlier fruit and better quality; fifth,—to prolong the life of the tree.

The proper cultivation of dwarf fruit trees, with regular forms, like Pyramids, Cordons, Espaliers, etc., he remarked, is to raise a certain amount of trees in different shapes without difficulty in small space with better fruit and more production. A continuous production can be had by leaving only a certain amount of fruit each year and getting a more satisfactory growth. The fruit left on the tree in proportionate quantity is according to its vigor so that each will get its proportion of nourishment, sun and air required for bigger volume and better quality. The maturity is hastened by the effect of pinching, sun and air.

Mr. Butterbach declared that pruning and pinching is necessary if the work is to be done according to vegetable physiology. If improperly done it will prove detrimental to fruit production and to the tree. The winter pruning is distinguished from the summer pruning in that the winter pruning is done from the time that the sap has entirely stopped flowing until before it starts flowing again, while the summer pruning is done from the time vegetation commences in the spring until the end of

August.

Pinching has the effect of forcing the sap in the useful spurs, in throwing out new shoots and setting others to fruit. The severity of the pinching depends on the vigor of the tree and its bearing quality. Young trees not entirely formed are the more severely pinched to give them regularity and form, also to set them to bear. If two growths are on the same spur, one is pinched while the other is left to be pinched much later, for if the two growths were pinched at the same time, the sap would push the eyes to new growth and would have to be pinched again and again without getting the result we are aiming at, namely, fruit buds. If there are more than two growths on the same spur, they are entirely cut out.

Pinching should be done gradually, for if it is practiced too much at a time the fruit buds will develop into wood buds.

The gourmand is a spur which is easily distinguished by its proportion from that of its neighbors. The eyes near the base are very small and far apart, while those on top are big and develop full shoots. The gourmand lives where the circulation of the sap is strongest; it takes the nourishment from the other spurs and destroys the equilibrium of the tree. Gourmands are more frequently found on apple cordons than any other tree, they must be pinched more frequently than other spurs to distribute the vigor of the tree. The brindle is a spur, long and flexible, six to eight inches long, and has very small eyes. It is not disposed to grow strong and is one of the first sources of fruit. If there are enough of fruit buds on the tree, the brindle is cut to two or three eyes, otherwise it is left alone.

Summer pinching is one of the most important operations in the culture of the fruit tree. It should not be done too early, as the sap is apt to leave the pinched part and would produce nothing, while on the other hand, if pinched too late well-formed eves would develop instantly and the result would not be satisfactory. Pinching ought to be done to three, four, five, or six leaves or eves, according to the variety or growth. Young trees should be more severely pinched than the older ones, and this practiced until they are entirely formed.

## CAVITY TREATMENT OF TREES.

By F. A. Bartleil, Connecticut.

The people of this country are at present giving a great deal of attention to the care and preservation of their trees, but they are still far more concerned in the repairing of a tree broken by the storms, or the filling of cavities formed by wood-destroying fungi than in preventing these injuries. Everybody should bear in mind the fact that it is far more important and effective to prevent these cavities than it is to repair them, after they are formed. Properly filling a cavity will prolong the life of a valuable tree for some time, but rendering the tree resistant to disease by caring for the small wounds and giving it plenty of proper nourishment will enable the tree to live almost indefinitely. In order to be able to guard against decay it is necessary to know its cause



DECAING WOOD SHOULD BE DUG OUT UNTIL GOOD HEALTHY TISSUES ARE REACHED.

and how it obtains a hold upon the tree. The outer bark is the tree's natural protection against disease, and if this were never broken it is perhaps safe to say that no cavities could be formed. Unfortunately, however, the bark very frequently is injured. The surrounding air is filled with spores of many kinds of wood-destroying fungi. As soon as the surface is exposed the rot fungi gains foothold and in time a cavity is formed, which even with the best care is apt to grow gradually larger and finally the tree is lost.

The beginning of cavities is due to numerous causes. the principal ones being wind, lightning, ice-storms and boring insects, or a small branch only may be broken off which receives no attention. Wood-destroying fungi enters at the exposed surface and gradually weaken the branch until a sudden storm breaks it. A large area is then exposed and the decay continues until the larger branch is broken, and thus the decay may work its way

into the very heart of the tree and finally the whole tree is blown down. The proper treating of the small wounds with a protective dressing might have been the means of saving a valuable tree. However, since people are not aware of the great importance of constantly guarding against the entrance of the wood-destroying fungi, cavities are formed and once formed should immediately be treated in such a way as to arrest as far as possible further decay. Although decay in trees is comparatively slow we are much more certain to stop entirely the rot in a small cavity than if we wait until it is of consider-

First, all decaying wood should be dug out until good healthy tissues are reached. The shape of the completed cavity should be such that it will naturally hold firmly whatever material is used to fill it. Very shallow cavities are not filled at all, but covered with a good wateroproof antiseptic dressing. A groove should be cut back of the edge of the bark into the wood a half inch or more. After the cavity is cleaned and correctly shaped, nails should be driven into the inner surface of the cavity to hold the cement. The inner surface should then be



CONCRETE THITING BUILT IN SECTIONS
NEW GROWTH WILL SOON FORM
OVER THE FILLING, IF THE TREL IS VIGOROUS.

thoroughly cauterized with some antiseptic material such as carbolineuim, creosote or tar. Sometimes in case of water collecting in the base of the cavity copper sulphate crystals may be added. The cavity may then be filled. Cement has thus far proved to be the most satisfactory material for filling cavities of any size. It has been found that solid cement will crack with the swaying of trees. This can be overcome by building in the cement in sections. These sections move slightly one over the other, whereas, in the case of solid cement cracks would be made. The filling should be built to conform with the contour of the tree and the edges flush with the inner bark to provide the best possible conditions for rapid

(Continued on page 374.)

# Aquatic Plants for Every One's Garden

By Samuel D. Zehring, Massachusetts

In most any garden, regardless of size, shape or conditions of the grounds, water may be introduced, providing it be in harmony with its surroundings. natural sheets of water do not occur, an artificial pond is of easy construction. These are usually more or less formal or geometric in outline. The restriction of certain plants is more pronounced here than in the natural lake; and almost limited to the lilies and grasses. If the more tender aquatics are to be used, it is important to protect the pond from north winds by trees and shrubs, evergreens preferably, placed back far enough not to over-shadow the waters.

Probably no aquatic is more appreciated than the Nymphaeas. Their colors range from purest white, through delicate pinks to deep reds; from purples to lightest blues; and from pale yellows to deeper salmon. They differ not only in color, but in their time of blooming. Some open at daybreak, others later in the day, while the Nymphaea Lotus appears with the evening star, and with others remain open throughout the night. Most of the blossoms float on the surface of the water, but some are carried 18 inches above the surface and vary in size from 3 inches to 15 inches in diameter. A few of the stronger ones rise to a height of 6 to 8 feet.

As to grasses which may be well grown in the formal pool, the long, narrow leaved ones, ornamental or colored, are better than the larger coarse plants, except such as Caladiums, which are quite attractive about the foun-

Erianthus Ravennae, resembling the Pampas Grass in habit and flowers, is one of the best. The leaves and stems are tinged with purple, and the flower plumes are borne on stems 5 to 10 feet high. It should have a deep. rich soil and be exposed to the sun.

Eulalia gracillimus has narrow, green leaves, with a white stripe down the center of each. It is very graceful with its leaves, 8 feet in length, drooping to the ground. It attains its greatest development when used as a specimen plant.

The well known Pampas Grass (Gynerium argenteum) is one of the best we have, but is rather tender and should only be used on sheltered position.

The Calamus gives several good varieties. gramineus variegatus is one of the most attractive, with its narrow, grass-like leaves striped with white. It does well in moist soil or shallow water.

Cyperus alternifolius, the Umbrella Plant, makes a beautiful specimen, growing 3 feet in height, and sending up symmetrically shaped leaves radiating from the tips of the stems, having the same tufted head as Cyperus Papyrus.

For the natural ponds and streams, almost any of the water-plants can be used to advantage, and from the almost unlimited assortment, the gardener can produce any effect or motif desired. But for the natural planting. the variegated forms would best be omitted except in few occasions

When a background is desired, any of the evergreens may be used. Rhododendrons also, give excellent results when planted at the water's edge where their charms are doubled and enhanced. The Kalmias, like the Rhododendron, delights in a moist, peaty soil, and is one of our most charming native plants. Neither of these should be planted on a small island, but on the mainland, where their mass will not counter-balance their setting.

very effective along the water. The leaves are light green above, and pale beneath. Its attractiveness is even greater in the winter when its bright red growth is so prominent. To preserve its beauty a severe pruning is necessary in the spring.

Magnolia glauca also finds itself at home in the swamps. It is a shrub-tree with bluish green leaves,

and sweet-scented, cream-colored flowers.

Cyperus Papyrus is one of the most graceful plants in the water garden. It should be planted in a box of soil and set a few inches below the surface of the water. Its long stems grow 10 to 15 feet high, and bear fluffy plumes of fine grass-like leaves at their tips. It is tender and must be protected.

Lizard's Tail (Saururus cernuus) is fine for the margin. It is a hardy perennial with heart-shaped leaves, and fragrant white flowers. It reaches 2½ feet in

Typha latifolia, the common Cat Tail is well adapted for planting along the water. The leaves are flat, long The flower is a brown cylindrical spike, borne on a 6-foot stalk.

Calathea zibrina requires a shady spot. The leaves, 3 feet long and half as wide, are a beautifully velvet green, barred with purplish green.

Fatsia papyrifera is an interesting plant, 5 feet high. Its leaves are cordate, 5 to 7 lobed, and about 1 foot in

diameter. Monstera deliciiosa is a good border plant with perforated leaves, 3 feet long and 1 foot wide. The margins

are deeply cut. Acorus calamus has erect lance-shaped leaves, 3 feet

high, and does well in shallow water.

Pontederia cordate, the Pickerel Weed, is one of the handsomest of aquatics for shallow plants. It grows 2 feet high, bearing purple flowers throughout the sum-

Many other plants may be used and each having a place that can be filled by no other. Besides the foliage aquatics, there are a great many perennials adapted to moist soils and useful for their flowers.

Probably none in this class are so common nor yet so fine as the iris which has been so emphasized in the Japanese gardens. A great variety of tints, shades, and combination of colors are to be found here in the various types. They are particularly fine for massing along the open margin of the lake or bordering a small stream in clumps.

The flowering rushes resemble the Iris in foliage. They

grow 3 feet high and bear rose-colored flowers.

Dicentra spectabilis, while not preferring wet soil, delight in a moist shady spot, where they reach 2 feet in height, and send out long, graceful recemes of rosycrimson flowers.

Lobelia cardinalis should be largely used around the pond. It grows 2 to 4 feet high and its flowers are bright, cardinal red, on long spikes, from July to Sep-

Spiræa aruncus, one of the finest, grows luxuriantly in a rich moist soil or at the water's edge. It stands 3 to 5 feet high, with beautifully divided leaves and white gracefully drooping plumes in June and July.

This article hardly seems complete without mentioning the Weeping Willow always seen along the pond. Its most fitting place is by a falls where the vertical lines Cornus Stolonifera, growing 6 to 8 feet in height, is of the water will be in harmony with those of the tree.

# AMERICAN SWEET PEA SOCIETY'S SHOW

The seventh annual exhibition of the American Sweet Pea Society, which was held in conjunction with the Newport Horticultural Society and the Newport Garden Association, at the Casino, Newport, R. I., July 15-16, was the most successful sweet pea show ever held in this country, both in quantity of exhibits and in quality of blooms. The exhibit was largely attended, many gardeners coming from a distance. A large delegation traveled from New York, while a special party, members of the Boston Florists' and Gardeners' Club, numbering nearly 150, journeyed from Boston.

The achievement of Edwin Jenkins, superintendent to Giraud Foster, Lenox, Mass., who won many firsts, is deserving of special mention.

At the convention of the American Sweet Pea Society, which was held in connection with the show, the following officers were elected: President, William

a vase, to be showe with sweet pea foliage only, cup to a won twice 1, Arthur Curits Lemes 2, 2, Giraud Foster.
Class A 4. The Wessel & Don prize, tor the best vase of few sprays, mixed sweet peasant under for effect. Mrs. W. W. Sherman (Andrew Ramsay, gardener)
Class A 5. The Meant Descrit Nurseries prizes, for the best vase of sweet peas, one valent vany color, 20 stems arranged for effect, and other foliage they, Sweet Pea may be used 1. Mrs. To J. Lamery (Andrew Dorward, 2, 10, 10, 1).
Class A 6. Josep. Rock & Sons' prizes, for the best three vases, 25 stems to a vase Spencer varieties 1, Mrs. Robert Winthrop.
Class A 6. Josep. Rock & Sons' prizes, for the best vase of Spencer Sweet Pea royal pumple 1, Ginaud Foster
Class A 8. For oest vase of Spencer Sweet Pea, Marganet Maddson Improved 1, Mrs. H D Anchineloss (John Mahan, gardener).
Class A 9. Hitchings & Co,'s prize, a Silver Cup, for the best eight vases of Sweet Peas, 20 tims to a vase, 8 distinct Spincer varieties, named—1, Giraud Foster, Lenox (2, Colonel Charles I, Pfaff, South Frammaham, Mass. (Gonge Melvor, gardener).
Class A 10. Sutton & Sons' prize, a Silver Cup, value 825, for the best table of Sweet Peas sons' prize, a Silver Cup, value 825, for the best table of Sweet Peas covering 12 sq. ft., and not to exceed 3 ft. in height 1, Mrs. T. J. Emery (2, Col. Charles T, Pfaff, Class A 12, Carters Tested Seeds, in, prizes, for the best six tubs of Sweet Peas, any color, to be exhibited in bloom—4, Miss Edith Wetmore (8, J. Johnson, gardener); 2, Stuart Duncan (William MeGillivray, gardener).
Class A 13. The American Sweet Pea Society's prizes, for the best

way, gardener);
Class A 13. The American Sweet Pea Society's prizes, for the best display for effect, covering a round table about 4 fect across - 1, Silver Medal and \$25. Mrs. William G. Weld (James Watts, gardener); 2, Brouze Medal and \$25. Mrs. William B. Leeds (William Gray, gar

GENERAL VIEW OF THE SWEET PEA SHOW, CASINO, NEWPORT, R. I.

V SPECIMEN SWEET PEV BUSH PLANT IN TUB

THE BURPEE COLLECTION WHICH SECURED THE GOLD MEDAL



Gray, Newport, R. I.; vice-president, George W. Kerr, Doylestown, Pa.; Secretary, Harry A. Bunyard, New York, N. Y.; treasurer, A. T. Boddington, New York, N. Y. It was voted to hold the 1916 Sweet Pea Show at Bar Harbor, Me. It was also suggested that separate exhibitions may be held next year in New York and in other cities if sufficient enthusiasm can be worked up to get the growers to act.

The list of prize-winners in the gardeners' classes follows:

AMERICAN SWEET PEA SOCIETY'S AWARDS PRIVATE GARDENERS.

Class A 1. Peter Henderson & Co.'s prizes for the best vase, 20 prays to a vase, of 12 distinct varieties of Spencer Sweet Peas—1, iraud Foster, Lenox, Mass. (superinfendent, Edward Jenkins); 2, 17s. Robert Winthrop, Lenox (superintendent, S. W. Carlquist); 3, 17thur Curtiss James (J. H. Greatorex, gardener).

Mrs. Robert Winthrop, Lenox (superintendent, 5, w. Cariquist), 9, Arthur Curtiss James (J. H. Greatorex, gardener).
Class A 2. The Thorburn prize, a silver cup, for the best 12 vases of sweet peak, Giraud Foster.
Class A 3, The Arthur T. Boddington prizes a silver cup and cash, for the best collection of 25 varieties, not less than 20 stems to

2. Mrs. French Vanderbilt (David Hay, gardener). Winthrop.
Class B. 3. The Henry F. Michell Co.'s prize, silver medal for six vases, 25 sprays each 1. Col. Charles T. Pfaff.
Class B. 4. The "Michell Seed House" Bronze Medal, for best 25 blooms "Huminator," 1. A. N. Cooley.
Class B. 5. The "Michell Seed House" Silver Medal, for best vase Spencer varieties mixed, not less than 100 blooms—1. A. N. Cooley.
Class B. 8. The Thomas J. Gieva Co.'s prize, a Cut Glass Bowl, for the best centerpiece of Sweet Pras. 1. Mrs. W. W. Seeman, 2. Mrs. T. J. Emery.

J. Emery. Class B 9 The Wetkins & Simpson prize, for the best six vases Sweet Peas six varieties, 20 flowers to a vase 1 810,

Class B 9 The Wetkins & Simpson prize, for the second of Spencer Sweet Peas six varieties, 20 flowers to a vasc 1 810, Graud Foster.

Class F 2, The Jerome B, Rice Seed Co,'s prizes, for the best vase of 1915 novelty Sweet Peas, 20 sprays of one variety—1, Graud Foster; 2, Mrs. Robert Winthrep.

Class F 3. The Lord & Burnham Co's prize efforts grewers only a Gold Watch, for the best display of Sweet Peas, arrangement to count—1, John G, Halford, Bar Harbor; 2, Osear Schultz, Newport,

NEWPORT 6 ARDEN ASSOCIATION SPECIAL PRIZES

Class G.1. For the best tub of Sweet Peas of any white, cream or cream-yellow variety 1, Stuart Duncan; 2, Miss Edith Wetmore; 3, Mrs. T. J. Free Y. Class G.2. For the best tub of any scarlet, crinson rose or carmine 1, Mrs. W. G. Weld; 2, Mrs. Emery. Class G.3. For the best tub of any lavender, mauve, purple or blue—Stuart Duncan; 2, Mrs. Emery. Class G.5. For the best display, arranged against a wall, on a table space of 3 feet x 10 feet—1, Silver Cup, Mrs. Weld; 2, Mrs. Emery; 3, Captain Roger Welles, U. S. N. Golm Fletcher, gardeners.

NEWPORT HORTICULTURAL SOCIETY-SPECIAL PRIZES.

Class G. G. (25) sprays Sweet Peas (Spencer varieties), and white variety [1]. Girand Foster, wit Karg White; 2, Mrs. Robert Winthrop. E. Mrs. Prench Vanderallt.

Class G 7. 25 sprays, any climson or scarlet 4, Giraud Foster, with King Edward Spencer; 2, Mrs. Robert Winthrop; 3, Arthur N.

Class G S. 25 sprays, any rose or carmine Girand Foster, with Rosabelle; 2, Miss Alice Kelteltas (William J. Matson, gardener); 3, Robert W. Goelet (Colin Robertson, gardener).

Class G 9, 25 sprays any light pink 4, Girand Foster, with Eltrida Pearson; 2, Mrs. Robert Winthrop; 3, Arthur N. Cooley.

Class G 9, 25 sprays any light pink 1, Girand Foster, with Eltrida Pearson; 2, Mrs. Robert Winthrop; 3, Arthur N, Cooley.
Class G 10, 25 sprays, any dop pink 1, Girand Foster, with He, odes, 1, Mrs. Robert Winthrop; 3, Robert W, Goelet
Class G 11, 5 sprays, any blue—1, Girand Foster, with May 1 depther, 2, Mrs. Robert Winthrop; 3, Arthur N Coole;
Class G 11, 25 sprays any manve 4, Girand Foster, with Leske Imber; 2, Mrs. Robert Winthrop; 3, Robert W, Goelet,
Class G 12, 25 sprays any cream or cream yellow 1, Mrs. French Vanderbilt, with a fine vase which we did not find named; 2, Girand Foster; 3, Henry A, C. Taylor (William MacKay, gardener).
Class G 14, 25 sprays, any salmon or orange—1, Girand Foster, with May Unwin; 2, Mrs. Robert Winthrop; 3, Arthur N, Cooley,
Class G 15, Sprays, any lavender 1, Girand Foster, with Den Alva; 2, Mrs. French Vanderbilt; 3, Robert W, Goelet,
Class G 16, 25 sprays, any maroon or purple—1, Girand Foster, with Royal Purple; 2, Mrs. Robert Winthrop; 3, Henry A, C. Taylor,
Class G 17, 25 sprays, any striped or flaked red or rose 1, Mrs. Winthrop, with American Spencer; 2, Robert W, Goelet,
Class G 18, 25 sprays, any striped or flaked red or rose 1, Mrs. Winthrop, with American Spencer; 2, Robert W, Goelet,
Class G 19, 25 sprays, any striped flaked blue or purple—1, Mrs. Vanderbilt, with Bertie Usher; 2, Girand Foster; 3, A, N, Cooley,
Class G 20, 25 sprays, any striped flaked blue or purple—1, Mrs. Vanderbilt, with Bertie Usher; 2, Girand Foster; 3, A, N, Cooley,
Class G 21, 25 sprays, any other color distinct from the above—1, Girand Foster; 2, Mrs. Winthrop, Class G 21, 25 sprays, any other color distinct from the above—1, Girand Foster; 2, Mrs. Winthrop; 3, Henry A, C, Taylor.

The trade exhibits were made by Henry A, Dreer, Inc.,

The trade exhibits were made by Henry A. Dreer, Inc., Bobbink & Atkins, W. A. Burpee & Compan, W. A. Manda, and R. & J. Farquhar & Company.



PRESIDENT ELECT WILLIAM GRAY.

President-elect William Gray, of the American Sweet Pea Society, was born near Edinburgh, Scotland, on the Arburthnot Estate, Mavis Bank, on April 20, 1874. His father was head gardener on this estate, the profession of gardening having been followed in the Gray family from father to son for several generations. In 1883 Mr. Grav came to America with his parents who settled in Middletown, N. Y., where his father secured the position of florist at the State Hospital. After leaving school Mr. Gray served his apprenticeship under his father and obtained his further experience as assistant gardener around and in New York and Newport. He obtained the position of head gardener to Horace Russell, Southampton, N. Y., where he remained for five years. For the past five years Mr. Gray has been in his present position as head gardener to Mrs. William B. Leeds, Newport, R.

I. He is well known in the gardening profession as an excellent grower and thorough horticulturist.

In accepting his office as president of the American Sweet Pea Society, Mr. Gray said in part: "I appeal to every florist, gardener and amateur to join this society. The gardener is the one to get the amateur interested by giving freely of his advice in regard to methods of growing, etc. In every community the gardener can take at least one amateur under his guidance and help arouse the amateur spirit which is so latent on this side of the Atlantic. This is right in line with the work of horticultural societies-the promotion of horticulture.'

### THE PROPER TURF FOR GOLFING GREENS.

It has always been my opinion, and I state it here right boldly, that turf of the best English quality can be developed on putting greens anywhere in the sections of the country covered by my tours, provided that the greens are properly prepared, fertilized, and top-soiled, if necessary, so as to form a seed bed of rich, friable soil of a minimum depth of four inches with all undulations fashioned with runaway surface outlets for storm water or melting snow in order to prevent, as far as it is humanly possible, any such accumulations when freezing and thawing conditions alternate and when the natural or artificial drainage, as the case may be, is put out of commission by the frozen sub-soil, writes Reginald Beale, F. L. S., in Golfing Illustrated. The so-called winterkill is bound to occur if such methods are not adopted and valuable time and money will be wasted.

Always, if possible, arrange for early fall sowing and regard the period between mid-August and mid-September as the selected moment. When the first rains come in the fall, the soil is so warm that the seeds germinate very quickly, and if sown thickly get well established and self-protecting before the winter sets in.

In the spring the soil is cold, and in consequence the seed not only germinates slowly but it also grows slowly, and the young grass plants have to face the heat and more especially the drought of the summer when in a very voung, weak state, very often with evil results. Also in spring, weeds and other obnoxious growths are much more prevalent than in the fall.

When making or contouring a green, remove the top soil, work with the sub-soil and finish off by replacing the top soil in an even layer over the green. The separation of the soil and the replacement of the same cannot be done properly by scoops, so it is always advisable that this section of the work should be done by hand, with spades and barrows.

All drains should be laid before the top soil is re-

In making up greens, each scoop or barrowful, as it is shot down, should be carefully trodden; otherwise the surface will sink later.

Always, if possible, make surface runaways from undulations, otherwise water will accumulate with disastrous results to the turf.

Water freely during droughts and in the evenings, if possible, as best results are then obtained. The water applied at that time does most good and does not evaporate as quickly as it does if applied in the heat of the day. In any case, water freely, and remember that one good soaking is worth a dozen light sprinklings.

Eradicate and destroy all weeds as soon as they appear, do not let them multiply, and remember that wire, witch, crab and September grasses get hold best in weak or exhausted greens. If you cannot exterminate the latter, keep them, like clover, in check by lifting the creeping or prostrate stems and branches with a close-toothed iron rake and mow closely; repeat this as often as neces-

Topdress freely with a finely sifted compost of a light, friable, porous nature, rich in organic or fertilizing matter, so as to reduce the plasticity of the soil if it is too heavy and to add body if it is too light, and when doing so remember that a cubic yard of compost will cover 144 superficial yards to the depth of a quarter of an inch, and that sixteen dressings at the above rate spread over say, three years, will reduce the natural top-spit soil of the dressed area to the secondary position of the subsoil, so there is hope for all greens, no matter whether they stand on sand or clay. The contouring and general preparation of a green is costly and its upkeep is more so, consequently it is the worst economy to be parismonious when seeding. In England, with our warm genial climate, we sow one ounce to a superficial yard and expect to get a close turf in a year or less, and when we are in a hurry we sow at the rate of two ounces per super yard.

In America and Canada, where the climatic conditions are, to say the least of them, extremely severe and difficult, the minimum rate should be two ounces per square

yard and the maximum, four ounces.

A true golfing turf is composed of dwarf creeping grasses, which form a close-soled, springy sod, which is both a delight to walk over and play on, as it holds the ball from the ground so that it sits up and looks at the player, and when a divot is taken the club cuts through the matted fibrous roots of the grass without hardly touching the soil.

Turf which does not answer the above description is not golfing turf at all; it may cover the ground and make it look nice and green and so mislead the casual observer, but it is worthless from a golfer's point of view,

and that's all there is to it.

I will now attempt to explain the reason for the lack of really good turf in America. In the first place, the best natural turf in the British Islands is found in locations that have been nibbled close by sheep or rabbits for years, and the best artificial turf where mixtures of grasses have been sown and where the turf has been closely mown from the very start.

Secondly, the great majority of the artificial or sown courses in America have been sown with venerable prescriptions propounded years and years ago for agricultural purposes before golf was known out of Scotland.

I might state here that eighteen years ago not only was it considered impossible to produce fine turf from seed, but there was absolutely no demand for it, but when the game of golf took hold of the civilized world, I saw that the ordinary commercial mixtures of lawn grass seeds and the old methods of turf production must go by the board and new methods and new mixtures take their place.

The third reason is the antiquated idea that the indigenous or native grasses are best in their own sections or zones, because they are indigenous or native, an argument which absolutely bolts and bars the door to any sort of improvement and is as worthless as it is futile.

The fourth and last reason is the improper ratio in which the various varieties are used (even when the mixture is made up of correct varieties) and also the thin

sowing.

The rate the seed is sown per acre is another very important question, and no matter from what point of view the subject is tackled, financial, common sense, or golfing, heavy sowing is undoubtedly the best and cheapest.

Judged from the common-sense point of view the advantages of heavy sowing are just as striking, especially if one remembers that a close turf is either composed of

relatively a few large grass plants which may take a year or more to mature, or a multitude of small ones which can be produced in a few months and which improve with age.

If the seed is sown heavily at the right reason the little grass plants are crowded together and so afford each other shade and protection from wind or sun almost from the start, whereas, if light sowing is resorted to, the little grass plants have got to stand alone, and a poor chance they get if adverse weather sets in, either in the shape of a cold dry wind or a hot scorching sun. It is wonderful what a little shelter will do; I have frequently noticed that the seed in the hoof-marks made by horses harrowing and rolling in the seed gets quite a start on its exposed neighbors, and where the seed has been gathered together by a wash-out it comes up like hairs on a cat's back and is self-protecting from the very start.

### POISON IVY.

Experiments in destroying poison ivy by means of chemicals have developed only a limited field of usefulness for this method. Applications of strong solutions of crude sulphuric acid or of crude carbolic acid have been found effective, but serious risks are encountered in handling these substances. In work undertaken by the Massachusetts Experiment Station it was found that arsenate of soda could be used very successfully to kill poison ivy on large trees over 6 to 10 inches in diameter and on stone walls, buildings, etc. In open fields, however, this treatment proved expensive and injurious to other vegetation, rendering the land useless for several years. In these experiments two or three applications of arsenate of soda at the rate of 2 pounds to 10 gallons of water were generally sufficient. The preparation is poisonous and stock must be kept away from the poisoned plants. The cheapest and most effective method of eliminating poison ivy seems to be the simple one of rooting up the plants and destroying them. In large fields it may be necessary to plow and cultivate the land, says the U.S. Department of Agriculture.

The safest time for handling poison ivy is in the Fall, after the sap is out of the plants and after the plant has stopped flowering, as the sap and pollen make the plant more likely to affect those who come in contact with it. In any case, however, the following protective measures should be used by those attempting to eradicate it. With the exercise of due care, the use of overalls and gauntleted gloves will enable most individuals to deal with the plants with impunity. The further precaution of greasing the hands with lard, to be washed off with strongly akaline soap on conclusion of the work, has been recommended. It may be possible to employ some one to remove the plant who is not affected by it, since many individuals are practically immune from the effects of poison ivy. In burning poison ivy care must be taken to keep away from the smoke, as cases of serious injury to eyes, rose and throat from the poison conveyed by this means have been reported.

The toxic properties of poison ivy are attributed to a nonvolatile oil which is found in all parts of the plant even after long drying. Minute amounts of this oil are capable of causing extensive inflammation. The oil is insoluble in water but may be removed by alcohol or destroyed by a solution of sugar of lead and alcohol. As a preventive measure thorough and repeated washing with warm water and strongly alkaline soap as soon as possible after contact with poison ivy is advisable, and it should be borne in mind that the poison may be transferred indirectly from clothing, and implements, also from towels used by those who have been in contact with the plant.

### MUSHROOMS AND TOADSTOOLS.

The rambler who has never had his attention attracted by the lowly and unassuming toadstool, must be blind indeed. In summer and autumn, go where he will, in field, woodland and thicket, the representatives of this widespread family appear. Many people are wont to assume that out of all this host there is but one edible species, distinguished as the Mushroom, while all the others are poisonous toadstools. In fact, the idea that the possession or lack of noxious qualities divides these plants into two natural groups is very general. mycologist, however, selects and eats many which are regarded as toadstools-one individual claims to have tested five hundred species—while the unscientific who feel confident that they can distinguish mushrooms at sight, frequently select the wrong kind and the next day furnish employment for the undertaker and the obituary editor. The majority of our species are probably harmless, but there are unquestionably many that are noxious, harmful or even deadly posionous.

There is really no difference between a toadstool and a mushroom, unless we choose to regard the poisonous species as toadstools; but in this case we shall be scarcely scientific. The harmless and noxious species do not belong to different genera but occur side by side in the same group. Among the *Amanitas*, some species are regarded as especially toothsome, while others are

among the most deadly known to mycology.

Many rules have been put forth for distinguishing the harmful species, but all but two of them are more or less unreliable. The first is to learn to know them by their specific characteristics, just as one learns to know an elm or an oak, the second is to eat the suspected species. In the latter case, if the investigator lives, he will be safe in recording his plant as edible and harmless. The novice should be cautioned against eating any species of whose identity he is not absolutely sure. It may be reiterated that the proportion of poisonous to harmless species is relatively small, although the former often make up in numbers what they lack in species. It is a curious fact that while the unwholesome species produce their effects within a short time, the really deadly ones do not begin to operate until from eight to fifteen hours after they are eaten—by which time they may have been nearly forgotten, and the sufferer may thus fail at first to connect cause and effect. The development of the trouble is then rapid and no time should be lost in sending for a physician. Even at this stage there is an antidote for the poison in atropine, itself a deadly poison. It is administered in subcutaneous injections.

There are not a few people who would scarcely regard mushrooms as plants. Their lack of leaves, true roots, green coloring matter, etc., seem to make out a good case against them, but with all this evidence, one would still be disinclined to call them animals, although they possess the animal-like characteristic of requiring readymade or organic food, and are unable to obtain sustenance from the earth, air and water, as ordinary green plants do. They are therefore reduced to the position of scavengers, living upon other plants, and animals, dead or alive. Mushrooms belong to the flowerless division of plants, of which the ferns are among the higher types. Their place in the line of relationship is below the ferns, below the mosses and liverworts, almost at the foot of the ladder of plant evolution in fact. Their nearest allies are the seaweeds and the green scums that are often found in fresh water pools. By many they are supposed to be degenerate offspring of the higher seaweeds. Like all the flowerless plants, they have no seeds but are propagated by spores which serve the same purpose. A spore falling in a proper situation for growth, soon gives rise to a tangle of threadlike structures which forms the body of the plant. This substance made into bricks and dried, is the mushroom "spawn" sold by the dealers. At intervals little rounded knobs form upon the mushroom threads and later develop into the familiar umbrella form. If the "spawn" is exposed to unfavorable conditions, it is said to be able to wait for years for a chance to fruit. The mushroom, it may be said, is only the fruiting part of the plant, comparable in a general way with the flowering spike of the century plant, although not homologous with it. On the underside of the umbrella-like cap are numerous radiating plates called gills which support the structures on which the spores are produced. By cutting off this cap and laying it, gills down, on a clean piece of paper, there will be produced in a few hours a "sporeprint" in exact duplication of the arrangement of the gills, and due to the shedding of the numerous spores. Usually the spores are of the same color as the gills, although in some species they are

The mushrooms are classed with the higher fungi. Among their poor relations are numbered the rusts, smuts, blights, mildews, molds and bacteria. The puff-balls and morels are also nearly related. Although so low in the scale of plant life these constitute a very respectable part of the vegetable kingdom, since more than forty thousand species have been described.

There are about two thousand species of mushrooms in America. Some of these are known from only a single state, while others are distributed throughout. Formerly all were classed in the genus Agaricus, but owing to the differences which exist in such a multitude, they are now placed in five groups according to whether their spores are white, pink, vellowish, brown or black. Each of these groups contains one or more genera. The student who turns his attention to this assemblage of plants will find a greater diversity of characteristics than he might imagine from a cursory examination. In color it includes species with scarlet, violet, yellow, green, orange, white, brown and gray caps. In texture they are leathery, tough, brittle, fleshy or watery. Some are tasteless, others are bitter, peppery, mealy, or with a nutty flavor. In odor some are repellant while others have various pleasing odors "like ripe apricots," anise, etc. The genus *Lacturius* is peculiar for having a milky juice that in different species is white, orange or even blue. This juice is often acrid. In one species it is so much so that it is said to sting a tender skin like nettles.

In spite of the dangers that hedge round the pleasures of the mycophagist—as the mushroom eater likes to be called—these plants have been used more or less for two thousand years. The people of China, Italy and France are among the chief consumers of mushrooms. It is said that the city of Rome now uses about thirty tons annually. When a person speaks of the mushroom, Agaricus campester is the one usually meant. It is the commonest species in cultivation and is also abundant in the wild state being found in pastures and other grassy places but seldom if ever in the woods. The cap is usually white and the gills at first a beautiful pink, changing later to brown.—American Botanist.

Send your subscription to begin with July number to
THE CHRONICLE PRESS, Inc., Publishers
The Gardeners' Chronicle of America
286 Fifth Avenue, New York

The off-modules is a mathorish in interest in our considerability of the sail su

# Our Native Birds' Protectorate

Under the Direction of the Committees on Bird Protection.
National Association of Gardeners, L. H. Jensen, St. Louis, Mo., Chairman.
American Association of Park Superintendents, Herman Merkel, New York, Chairman.

# APPLIANCES FOR ENCOURAGING THE RETURN OF THE BIRDS.

Now that the great battle has been fought and won for the legal protection of our smaller birds—known collectively as song birds, although many do not sing—the question arises as to how best to help them to regain an approximation of their former abundance. Examination of the conditions brings to light the fact that actual persecution at the hand of man has not been the only cause of the diminution of birds. This direct method has been complemented by a far more insidious means, and one which cannot be so easily combatted.

When the colonization of America commenced, it is easy to imagine that some stimulus may have been given to certain small birds—more especially those which habitually nested in hollow trees, and excavations in dead stumps. The clearing of ground, which left many stubs, and the establishment of orchards, meant a great multiplication of nesting sites and an increase of feeding grounds for those species which preferred open country. But with the density of population constantly increasing, more care was devoted to the conservation of forests, and today the application of modern forestry methods has so trimmed the branches of the old orchards, and so carefully removed all dead or decayed forest trees, and insect-harboring undergrowth, that many of our useful birds are hard pressed indeed to find a cranny in which to deposit their eggs, or cover in which to search for food.

The red-headed woodpecker, once common about New York, is now rarely seen, and for the first time in many years, a pair is nesting this spring in the Zoological Park. European starlings and sparrows occupy the few remaining holes suitable for the nests of bluebirds and, excepting during the migration period, the querulous notes of this beautiful songster are wanting from our parks and suburbs.

Since it is evident that this condition has been brought about directly by us, it is equally obvious that it rests with us to remedy it as far as lies within our ability. Fortunately the means is at hand, and its application is of direct and permanent value to many of the birds we most desire to benefit.

Suitable nesting boxes are available and can be substituted for the vanished dead limbs, and various devices have been originated for holding food to help the little feathered winter visitors maintain themselves. Even during the summer months, when food is more abundant, a few birds will be found visiting the food depots. For the purpose of disseminating knowledge concerning the use of such apparatus, the Zoological Society has established an exhibit of these contrivances in the Park.

About New York, the birds most likely to be attracted to food depots are the following: Blue jay, downy woodpecker, hairy woodpecker, flicker, nuthatch, brown creeper, chickadee, white-throat sparrow, song sparrow, tree sparrow, junko, sistine, purple finch and possibly the cardinal and tufted titmouse. Woodpeckers and nut-

hatches will visit the suct chiefly, blue jays will eat almost anything. For the finches, a mixture of various seeds should be provided—sunflower, hemp, canary and millet are among the best, although any nourishing, assimilable grain will do. Bits of dry bread and nut meats are relished by many birds

There can be no doubt that suitably placed bird houses are a very potent factor in the encouragement of birds. If the locality is at all favorable, and a little thought be given to construction and especially to location, it will be found that birds will take possession of them. It is a strange fact that while birds will frequently ignore elaborate structures, they often will unhesitatingly occupy the most unpromising cavities. Empty cans, old hats, and the roughest of boxes, seem to offer all that the home-seeking bird desires. Hence, it follows that any boy can build suitable bird boxes for himself that are as likely to be found acceptable as any others. Those who lack the time or ingenuity for this work, will find the market well supplied by a number of manufacturers.

Of single nest-boxes for small birds, there is great diversity of style, but after all there are but two main types—the hollowed natural log and the artificial house of boards. These logs certainly offer the closest approximation to natural nesting sites that can be produced, and birds take to them with confidence. It has been found, however, that in many cases artificial houses have proved even more satisfactory.

The birds which are likely to occupy houses in the vicinity of New York are the following: Bluebird, crested flycatcher, purple martin, tree swallow, chickadee, flicker, house wren, starling, European sparrow, sparrow hawk, screech owl and possibly also the nuthatch, Carolina wren, tufted titmouse and downy woodpecker. Robins and phoebes will nest on open shelves, which can be provided with a rim to hold the nest and a simple roof for shelter. Starlings and sparrows, unfortunately, nest in holes, and their pugnacious dispositions are too much for the smaller native birds. The bluebird can be protected from the starling by making the entrance holes one and one-half inches in diameter, which is too small for the latter. It will not, however, exclude the sparrow. Martins like entrance holes at least two inches in diameter, but can squeeze through one and one-half if they will. Chickadees and wrens are protected by holes seven-eighths to one and one-eighth in diameter.

Some discrimination must be exercised in placing boxes according to the habits of the birds that they are expected to attract. Bluebirds are most likely to nest in an orchard, or rough pasture, although they will often come close to houses. This applies also to flickers, crested flycatchers and chickadees. Wrens will nest in boxes attached to buildings, or placed on poles nearby. Tree swallows will occupy boxes a few feet above the ground, on poles, especially where it is marshy, and martinhouses should always be entirely in the open, well away from trees. In general, boxes should be placed from six to twenty feet from the ground, and those on poles or in isolated trees are more likely to be occupied than those situated in thick woods.

<sup>\*</sup>By Lee S. Craedall, Assistant Curator of Birds, Zoological Garden, New York, in Z. J. gird. Balletin

# Producing Natural Effects in Conservatory Planting

By W. W. Ohlweiler, Missouri

The arrangement of the plants in large conservatories is influenced by a number of factors whose ultimate influence, if we may judge from examples of large conservatory plantings in this country, tends to bring out the artificial character of the surroundings. these examples there are notable exceptions such as the fern house at Garfield Park, Chicago, and parts of a number of other conservatories throughout the country. In general we know that the dominance of the greenhouse structure together with the formality of the walks, of the benches, and of other artificial features, all tend to make the work of "landscaping" a greenhouse interior a rather difficult proposition. Just as the landscape designer is often called upon to plan for the improvement of a poorly located building, so the grower of greenhouse plants is often called upon to do impossible things with impossible buildings. Of course commercial ranges are exceptions as a rule; but conservatories are, unfortunately, usually built first and the planting arranged for afterward. The work on greenhouse interiors is still more difficult because of the nature of the plants to be used. Palms and other tropical plants are usually not available in the sizes or in the quantities that outside plants are, and furthermore their beauty only becomes apparent when after decades of growth they begin to approach their maturity. And then possibly their maturity is prevented because of the insufficient height of the house. The greenhouse always places certain limitations on the extent to which tropical specimens may be developed; and for this reason the conservatory should be planted primarily for the few specimens which it is to contain when they have reached their maturity. are familiar with the large Phoenix at Washington Park conservatories, or the large Attalya at Fairmount Park, must have been impressed with the size to which palms will grow under cultivation and will take good care that such palms as they are fortunate enough to plant are fortunate enough to have room in which to grow. There comes to my mind, as I write, a certain small conservatory, perhaps thirty-five feet high, where two Latanias are beginning to take the roof off, and where the owner is contemplating cutting them down in the spring to save the houses! Less than a year ago we were presented with a large Cocos Romanzoffiana and a large Arenga Saccharifera that were becoming too large for a forty-five foot house. former was growing in the open and has not apparently recovered as yet; the latter however was growing in a tub and is now doing well. So before planting out our conservatories it might be well to stop a moment and consider a little of what the future may have in store for the plants we use, so that when they reach their good old age, and we too reach the years of plenty, we shall not be forced to destroy them because we have not been far sighted enough. So then let me repeat that we must construct our conservatory for the plants which it is to contain, or else we must use pretty good judgment in our selection of the plants we put into it. The arrangement of the average conservatory is usually governed by the amount of money at the disposal of the builder, and the design of the house, the arrangement of the heating pipes, etc., are designed according to cost. False notions of economy of space, of heat radiation, are responsible for many objectionable features of modern conservatories. Certainly the arrangement of the walks, or the location of the heating systems, should not be such as to make for formality.

The placing of the heating pipes in a conservatory determines to a certain extent the location of the walks. Usually the walks follow the outlines of the house with the heating pipes at the outer edge of the walk or directly under them. This means the location of the plants in the central area. This system is usually advised because the lowest part of the greenhouse is usually at the sides and at the ends and by locating walks at these points but very little headroom is lost to the plants. Then again it is argued that walks in the center of the house take up valuable planting room. The correctness of this point of view is very much to be doubted. Walks through the house certainly do not prevent the development of plant roots under them, or the development of foliage above them, and an overarched walk is one of the beauties of any greenhouse. Radiation of heat directly from the pipes either under or at the sides of the boundary walks is neither comfortable for visitors or healthy for the plants. Another objectionable feature of outside walks is the tendency to mass the larger palms and tropical plants in the center of the house where they are not easily seen. certainly nothing is more annoying to the plant lover than to be forced to observe a good specimen at a distance when the walk might just as well have carried him near it.

In the new conservatories of the Missouri Botanical Garden many of the objectionable features mentioned above have been eliminated. This has been made possible largely because the particular type of construction used gave a very high arched roof which had the advantage of permitting the planting of large specimens within a very few feet of the outer edge of the conservatory. Furthermore, the heating pipes were all located on the boundary wall and do not extend from the wall over fifteen inches, and do not project above the foundation sill, which is about three feet higher than the door sills of the house. In order to prevent lateral radiation directly from the pipes a concrete wall was built entirely around the conservatory next to the pipes. This wall extends from the floor level, which is that of the door sills, to the height of the foundation sills, and is strong enough (four inches thick) to withstand the pressure of the earth piled against it. The earth in the house was graded from the floor level to the top of this protecting wall in most cases and gave a distinctly pleasing variation in the elevation of the surface and with the planting helped to hide the side walls of the house from the interior. Except at a very few points the heating pipes cannot be seen, yet they are easily reached in case of necessity. The walls are not reinforced. In a few houses the grade of the surface is carried considerably below that of the door sills but it is always carried up to the top of the protecting wall near the heating pipes.

The walks in all the houses with the exception of that of the floral display house are four feet wide, and connect one house with the other by pleasing natural curves. The walks are made of cinders about eight inches deep, being finished at the surface with the same material screened, and top dressed with yellow sand. The walks are bordered with porous limestone and the soil at the edges of the walk is always a little higher than the walk itself. This walk, which now has been down a little over

a year, has never been muddy and has never required more than an occasional sweeping and another dressing with sand. It is always damp and cool and agreeable to walk upon, and while it requires more attention than brick or concrete, its perfect harmony with its vegetative surroundings more than compensates for this. In the flower house, where people linger somewhat longer than in the other houses, a brick walk has been laid with sand foundation and sand between the bricks. This retains sufficient moisture and blends well with the various floral exhibits. The floral house is intended to be somewhat more formal than the other houses and the walks help to maintain this effect.

In planting the palm house, which is the largest of the whole range, two features have been kept in mind. First—to keep open the vistas on both axes of the house, and second—to have all the large specimens at a very short distance from the walks. Reference to the illustrations in The Gardeners' Chronicle, January issue. will show the total absence of large specimens from the open vistas and will also show the prominence of the taller plants near the walks. In time the canopy may be formed above the vista but below it will always be open and attractive. These canopies will also form and indeed are already forming above the walks. Labels have been placed on all the prominent specimens and in every case are easily read from the walk itself. These labels contain general information in regard to the economic use of the plants, their native habitat, common and scientific name. It would take too much space to list the many species of palms and other interesting plants that are in this and the other houses, but they are fairly completely listed and described in the Missouri Botanical Garden Bulletin for November, 1913.

The collection of economic plants has been treated in the same manner and persons can see and examine from a very short distance many of the economic plants from the tropics. These have been grouped so as to show the fruits, the medicinal plants, the fibres, the gums and resins, the condiments, the perfumes and the tropical woods. Tropical climbers are beginning to make their appearance on the rafters of all the houses and add much to the general appearance. The massing of plants close to the walks and forming high green walls gives a tropical aspect that is none too common in modern greenhouses. All the plants are planted out in the ground, and this is true of every house except the floral display house. In this connection it might be well to add that much care has been taken in preparing the soil for the houses. After the builders were through with the construction there remained a fill of from five to twelve feet throughout the range. This depression was filled entirely with a soil composed of a mixture of compost and well rotted manure. The compost was obtained from an accumulation of nearly twenty years vegetable matter, refuse from potting benches and emptied benches, etc. In fact it contained nearly everything except stones and rock. To this mixture was added a generous amount of crushed bone. When finally prepared the soil had the consistency of medium heavy loam. The houses were filled by means of three dump cars on tracks. A mule team and the aid of gravity helped materially in getting the houses filled. Some 3,000 yards of soil was required for the houses. The subsoil is in all cases a very heavy clay, and to insure good drainage four-inch porous drain tile was laid in runs about twenty feet apart throughout the

The floral display house occupies the southern wing of the range, and is particularly suited for this purpose because of the excellent view that may be obtained from the top of the stairway leading into it from the economic house. The masses of the larger flowers such as the chrysanthemums, the azeleas, the rhododendrons, cinerarias and hydrangeas, are particularly effective from this vantage point. The floral exhibits are continuous throughout the winter months, and are only replaced during the summer by the foliage plants such as caladiums and coleus and others, because the outside displays take their place. The grade of the house is flat and the variation in outline and the massive effects are obtained by the use of benches and stages. The house is about 145 by 33 feet and offers some opportunity for striking effects.

The three houses that have just been referred to offered no particular constructive problems, but represented more problems of arrangement. The fern house and the cycad house, which correspond to the economic and the flower house, respectively, in size and relative location, were entirely different problems. Ferns are most pleasing when they may be observed from all angles, but are particularly attractive when seen from above. This effect may be easily arrived at when the plants are small by planting them along the walks. But when the plants are large specimens of Alsophila and Angiopteris the problem is somewhat different. There is, too, the decided advantage of breaking the monotony of the houses by sudden changes in the plantation and the elevation. This may easily be effected when going from one house to another, just as it is practised when changing direction in outdoor planting. Much the same sort of effect is produced when entering the fern house as is offered when entering the flower house, but there is a change in the type of plant. A platform with a rustic bridge leading away from it over the little valley below is the main feature of the house. The valley extends the length of the house and the sides extend to the sills of the house. The slopes are planted with nearly 200 species of ferns and some of these trail in the pools at the bottom of the valley and in the little stream connecting them. Immediately under the entrance to the house a grotto was constructed of porous limestone rock. This takes up little room that could be available for plants but forms an ideal background for the rustic work that surmounts it and for the stream that has its source near it. It also forms an ideal place for the growth of many young ferns and for a number of liverworts and mosses.

From the fern house one enters the north wing or the cycad house. The same problem for the display of the plants is met with here as in the fern house and is solved in the same manner, i. e., by depressing the central portion of the house and planting the sides. The use of the pools and waterfalls has been continued. The arrangement of the walks and the arrangement of the hills and pools is different. Here the Japanese type has been aimed at and the effect is intensified by the use of granite boulders and the use of the little island and the small arched stone bridges. The effect will be still further increased by the addition of Japanese lanterns and the use of stepping stones in the walks. The collection of cycads in these houses is complete in generic representatives and contains some very large and beautiful specimens. The form of the house and its immense length in comparison with its breadth help to intensify one of the peculiar characteristics of the Japanese gardens, i. e., distance. This distance is further intensified by the use of the taller plants in the foreground and the use of the smaller plants in the distance. The nearer hills are the larger also and when the stepping stones are placed the larger one will also be in the foreground.

(Continued on page 377.)

THE

### GARDENERS' CHRONICLE

OF AMERICA.

Published by

### THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Foreign, \$2.00

First parties a could class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

::

Published on the 10th of each month. Advertising ferms close on the 1st preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editial matter (1) be addressed to M. C. Ebel, Editor, Madison, N. J.

### OFFICIAL ORGAN OF

### ASSOCIATION OF GARDENERS NATIONAL

1010 J. W. EVERITT, Glen Cove, N. Y. The Treadent

JAMES STUART, Mamaroneck, N. Y.

ITT, W. S. RENNIE, JAM. Y. Ross, Cal Mam. No. et a MARTIN C. EBEL, Madison, N. J.

### TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; Wm. Turner, Mendham, N. J.; Geo. W. Hess, Washington, D. C.; John H. Dedds, Wyncote, Pa.

### DIRECTORS.

DIRECTORS.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapelis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex, Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Celo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

GUSTAVE N. AMRHYN, New Haver, Conn.

ROLAND W. COTTERILL, Seattle, Wash

JOHN McLAREN, San Francisco, Cal. HERMAN MERKEL, New York, N. Y.

Unce-Presidents, CARL W. FOHN, Colorado Springs, Colo. CHARLES HAIBLE, Newburgh, N. Y.

JOHN HENDERSON, Montreal, Canada. J. H. PROST

Vol. XIX.

AUGUST, 1915.

No. 8.

The remarks of President-elect Gray, of the American Sweet Pea Society, suggesting co-operation between the professional gardener and the amateur gardener, and that the professional gardener be the one to extend the helping hand, are most timely, and should be carefully pondered over by all who have the interest of horticulture at heart. We have frequently been severely criticized for endeavoring to form an alliance between the professional and amateur, and so we are doubly pleased to have this notice come from a man who stands among the foremost in his profession. He speaks with authority, for he and the local society with which he is prominently identified have had much experience both with amateur growers and with garden clubs and which has resulted in mutual benefit to all concerned. The time is now most opportune to encourage and spread co-operation between the professional and amateur gardener for the purpose of arousing a more widespread interest in

ornamental horticulture in America, the accomplishment of which must result in greater opportunities for those engaged in the profession of gardening.

The account appearing in the July Chronicle, of a visit by a number of gardeners to a private estate on the invitation of the owner, has evoked the suggestion from several sources, that such "outings" not alone prove entertaining but instructive and that their more frequent happenings should be arranged for. In and about Boston "Field Days" among the gardeners have been popular for some time past, and during the season visits are made to the private estates and also to commercial establishments where there may be something of interest to observe for the gardener. We have also read of a similar practice on the Pacific Coast, but it has not yet been introduced about New York and elsewhere. The outing to Homewood was appreciated by those who participated in it. The opportunity presents itself for some one else to extend the invitation for a Field Day out of New York. We feel sure that the response to it will not be disappointing, whether it comes from estate owner or manager, or commercial establishment.

### THE LATE CHARLES L. SHEPPARD.

It is with deep regret we have to record the passing of Charles L. Sheppard, head gardener to Mrs. P. Cooper Hewitt, of Tuxedo Park, N. Y., on June 16, after a brief illness. The news of his demise came as a great shock to the gardeners and his friends of Tuxedo Park. He was the only son of Mr. L. Sheppard, head gardener to Viscount Gage, of Finle Place, Sussex, England, with whom he received his early training as a gardener. After coming to America, he secured a position as greenhouse assistant at Castle Gould, Long Island, until two years ago, when he came to Tuxedo Park as an assistant to Mr. William Hastings. Shortly after that time Mr. Sheppard secured the position he held at the time of his death. He was still a young man, 29 years of age, and on November 1 of last year he married Miss B. R. Turner, of Luton, Bedfordshire, England, and to whom the sympathy of all his friends is extended at this the hour of her sad bereavement. He was a very active member of the Tuxedo Horticultural Society and was ever willing to shoulder any duties assigned to him. He was also a member of Tuxedo Cricket Club, and was prominent in the affairs of the Men's Club of St. Mary's Church, and a member

On Sunday, June 20, the Tuxedo Horticultural Society turned out in a body to attend the special memorial service in St. Mary's Church, conducted by the Rev. R. S. Wood, of Tuxedo. Interment took place in Evergreen Cemetery.

### THE LATE DAVID ROSE.

Another of the old-time gardeners of Tuxedo Park has passed away in the person of David Rose, on June 18, after a very severe attack of pleura pneumonia, which lasted but a few days. He was 63 years of age. Mr. Rose was gardener on the Price Collier estate for many years and was very well known and much respected in the district. He had the reputation of a good vegetable grower, who prided himself on some of his produce and was also a great enthusiast on bees. Up till the last he spent much of his spare time in nature's study, in which he was very interested and had made it a life hobby. Mr. Rose left a widow and grown-up family to mourn his loss. Internment was in Sloatsburgh Cemetery.

### NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

### ASSOCIATION NOTES.

The eventure meeting of the trustees and hoard of directors was held at the Hotel Martinique on Wednesday, July 14, with the following members present: J. W. Everitt, Glen Cove, N. Y.; Wm. Kleinheinz, Ogontz, Pa.; John F. Huss, Hartford, Conn.; Arthur Smith, Reading, Pa.; James MacMachan, Tuxedo Park, N. Y.; Anton Bauer, Deal Beach, N. J.; John Johnston, Glen Cove, N. Y.; M. C. Ebel, Madison, N. J. The meeting was called to order with President Everitt in the chair.

Messages were received from George W. Hess, Washington, D. C. and Theodore Wirth, Manneapolis, Minn., regretting their

inability to attend.

The rep rts submitted by various committees all showed good progress within the association, and the treasurer's report showed a good financial balance.

President Everitt named the following committee to select a suitable design for the association's new medal: William Kleinheinz, P. W. Popp, John Johnston.

It was voted to send an official communication to delinquent members that unless their indebtedness to the association is paid by September 6 they will be dropped in pursuance with the by-laws.

The secretary was instructed to draw up resolutions for an amendment of the bylaws to present at the annual meeting, that members two years in arrears for dues shall be suspended, instead of three years as the bylaws now provide; also that a member six months in arrears shall cease to receive the official organ until his dues are paid.

The secretary was also instructed to acknowledge receipt of the inviation received from the American Association of Park Super-intendents inviting the members of the National Association of Gardeners to join them on their trip to the Pacific Coast, and to extend the thanks of the committee for the same.

It was voted to hold the annual convention this year, which

occurs the first week in December, in Boston.

The committee voted that the association's silver medal be offered to the Menlo Park Horticultural Society. Menlo Park, Cal., for its Fall show, to be awarded to a member of the National Association of Gardeners in a class to be designated by the local society.

The summer meeting, to be held in San Francisco in the middle of August, was discussed, and the majority of the members present expressed disappointment that conditions have become such as to prevent them from making the trip to the Pacific Coast at this time, which most of them had counted on when the meeting was proposed for San Francisco last year.

The essay committee requests the following publicity for the contest of the President Everitt gold prize.

Contestants must have their essays in the hands of the chairman, Wm. II. Waite, P. O. Box 290, Madison, N. J., not later than October 1. The essay must be signed with a nom de plume, must bear no evidence of the author's identification, and be mailed in a plain envelope, carefully addressed to the chairman of the committee.

The contestant will place his name and full address, stating the position he holds, in a separate envelope, writing the nom de plume he signed to his essay on the outside of this envelope, and mail same in a separate envelope to M. C. Ebel, Secretary, National Association of Gardeners, Madison, N. J. This envelope is not to be opened until the judges have rendered their decision on the contest. Write your essay distinctly and use one side of paper only. These rules must be strictly followed to avoid disqualification. The subjects have been arranged in four classes, as follows:

CLASS 1 Prize 835 gold.

Subject Hartredture as a Profession, From the Standpoint of a Gardener.

CLASS 2 -Prize 825 gold.

Subject—The Proper Grouping and Culture of Trees, Shrubs, Percentials and Annual Bedding Plants in the Ornamentation of Private Grounds,

CLASS 3 - Prize 820 gold.

Subject—Preparation of Ground for and General Treatment of Hardy Herbaccous Perennials. Naming a list of species (limited to one hundred) providing a succession of flowers throughout the entire season.

CLASS 4—Prize \$20 gold.

Subject How to Secure a Year's Venetable Supply With the Aid of Cold Frames or Hotbeds (but no Greenhouses), Including Soil Preparation. This essay competition is open to professional gardeners who are engaged in the capacity of superintendents, head gardeners or assistant gardeners.

A competitor is entitled to enter in one class only,

The broadest latitude will be allowed in dealing with each subject.

The essays are limited to 3,000 words each.

The contest will close on October 1, the judges to report their decision at the next convention of the association, to occur the first week of December.

The Essay Committee will appoint five judges, consisting of three gardeners and two representatives of the horticultural press. Contestants will address William II, Waite, Chairman of Essay Committee, National Association of Gardeners, P. O. Box 290, Madison, N. J., for further particulars.

The National Co-operative Committee has endorsed the resolution to it by the co-operative committee of the Nassau County Horticultural Society, recommending that members moving from one district to another be accepted through transfer from the local society with which they were affiliated by the society in the district to which they have removed, and will submit it to the different local horticultural societies for action when they renew their meetings in the fall. The resolution follows:

Your committee on co-operation having been instructed to present a draft of a plan on co-operation or affiliation of gardening societies, with a view to evenlying a stronger feeling of good-fellowship amongst members of such societies, beg to submit the following for consideration.

A member of a horticultural society, such as the Nassau County Horticultural Society, removing to another locality, and being desirous of associating homself with the horticultural society in the locality to which he has gone, should become eligible to full membership therein if he is in good standing, without the payment of dues to the end of the pseal year, and vice versa. In other words, he would simply be transferred from one society to another without any extra monetary charge whatsoever.

It would make it so that a stranger could enter a society in his new location, and, presenting a letter or identification eard, to the secretary of that society from the secretary of the society from which he was leaving, would be introduced to the members and made to feel at home.

Believing that this plan can be more widely circulated and can ried out by the National Association of Gardeners, your committee recommend that this society refer the matter to that body, and if acceptable to them, to have the National Association of Gardeners carry out the plan. (Signed)

JOHN JOHNSTON, 84MUEL J. TREPESS, ERNEST WESTLAKE,

Local Comperative Committee Vassay County Horticultural Society.

The chairman of the Committee on Our Native Bird Protection advises that he will call a meeting of his committee, to meet with the committee of the American Association of Park Superintendents, at San Francisco during the convention there, to formulate plans for future united action.

The summer meeting of the association to be held at San Francisco during the week of August 16 will be at the call of Vice-president William S. Rennie, who has charge of arrangements for the meeting. The headquarters of the association will be at the Stewart Hotel, Union Square

### AMONG THE GARDENERS

George Wittlinger has resigned his position as superintendent of the Miss Blanche Potter Estate, at Ossining, N. Y., to accept a similar position on the Fuller Estate, Briarcliffe, N. Y. Mr. Wittlinger assumed his new duties on August 1.

Edward Davies, until recently gardener for Paul Moore, Convent Station, N. J., has been appointed superintendent of the W. H. Wellington Estate, Wayland, Mass. Improvements are now under way on that estate, which include à new range of glass.

Arthur C. Ruzicka, who was gardener on the estate of C. Oliver Islin, Glen Head, N. Y., has resigned his position to engage in commercial work, to take charge of a rose growing establishment at Murray Hill, N. J.

William Kleinheinz, gurdener of the Widener Estate, Ogontz, Pa, and Mrs. Kleinheinz announce the marriage of their daughter Anna to Charles A. Mitchell. The happy event occurred on Tuesday, July 27.

Among the gardeners who have declared their intention, up to this writing, of joining the American Association of Park Superintendents in its trip to San Francisco are: Robert Williamson, Greenwich, Conn.; A. Bieschke, Noroton, Conn.; David F. Roy, Marion, Mass.; Oscar W. Karlson, Riverdale-on-Hudson, N. Y.; John F. Walsh, New York. Mesdames Roy and Bieschke will accompany their husbands. It is hoped that the number of gardeners will be materially added to as the party proceeds westward. M. C. Ebel, secretary of the National Association of Gardeners, will be one of the party.

### AMERICAN ROSE SOCIETY.

The executive Committee of the American Rose Society met at the office of President, S. S. Pennock, Philadelphia, Pa., on Tuesday, July 20.

The Hartford Rose Garden Committee, consisting of Messrs. John F. Huss, Wallace R. Pierson and Alex.

Cumming, Jr., report:

"On the 25th of June the new Roses of the test garden at Elizabeth Park, Hartford, Conn., were closely examined and silver medals were awarded as follows:

Conard & Jones Co., West Grove, Pa. - Climbing American Pillar Rose. -Awarded a silver medal. Scored 85 points. Highly recommended as a pillar rose.

A. N. Pierson, Inc., Cromwell, Conn.-Killarney Queen, Hybrid Tea. Awarded a silver medal. Scored 85 points. Recommended

as a grand bedding 10-c.

Hoopes Bros. & Thomas, West Chester, Pa. Purity, Hybrid Wichuriana.—Awarded a silver medal. Scored 87 points. A splendid grower that is recommended for every collection and garden.

Hoopes Bros. & Thomas, West Chester, Pa. Climbing American Beauty.—Awarded a silver medal. Scored 87 points. profuse bloomer, deserving to be recommended for every garden.

Hugh Dickson, Ltd., Belfast, Ireland.—Lady Pirrie, Hybrid Tea.—Awarded a silver medal. Scored 85 points. Recommended as a splendid bedding rose.

Edward Kress, 2506 North avenue, Baltimore, Md.—Registered as Defiance, Hybrid Tea.—Scored 85 points. Highly recommended

as a most excellent bedding rose.

"There have been added a number of new varieties of American origin this spring which will be watched with great interest in the future, and more are promised for the planting in coming fall. Much interest has been especially devoted to this Test Garden by the lovers of Roses, and the garden has been unusually well visited this summer.'

JOHN F. HUSS, WALLACE R. PIERSON, (Signed) ALEX. CUMMING, JR.

The National Flower Show to come off in Philadelphia next spring is gaining a good deal of attention and interest from the rose growers around Philadelphia.

The Cleveland Rose Show was discussed and the advisability of holding a meeting in that city during the show was advocated and a motion made to that effect, BENJAMIN HAMMOND, Secretary. carried.

### GLADIOLUS SHOW AT ATLANTIC CITY.

All arrangements are now perfected, and as it may be of interest to all Horticulturists, the committee deemed it proper to submit the following:

The show will be held at the Royal Palace Casino,

situated on the Boardwalk.

The dates are August 26, 27, 28, and 29. The exhibition will be from 10 A. M. to 10 P. M.

Every afternoon of the first three days a lecture will be given.

- (1) By Mr. Max Schling, of New York, entitled, "How to Arrange Flowers Artistically.
- (2) By Mr. Arthur Cowee, of Berlin, N. Y., entitled, "The Varieties of Gladiolus.
- (3) By Mr. Maurice Fuld, of New York, entitled, "How Best to Grow the Gladioli by the Amateur."

Every evening, from 8 to 10 o'clock, musical selections will be rendered by Schwab's Orchestra.

The hall has been spaced into so many spaces, each measuring 20x6 feet, which constitutes the exhibition space. Every exhibitor must try to break away from the old methods of exhibiting, and show his flowers in an original and artistic way, so that the entire show will be a thing of beauty. Exhibitors are charged rental of \$20 for each space, but the committee pledges itself to refund this amount if the returns from the show warrant it. A number of spaces are unengaged, and applications should be made at once to Maurice Fuld, No. 1 Madison Avenue, New York City.

The committee is confident that, if the weather conditions are favorable, our show will draw an attendance of 100,000 people during the four days, so that the exhibitors have a splendid guarantee of making their exhibit

The entire week will be known in Atlantic City as Gladiolus Week. This has been originated by the Publicity Bureau and the Hotelmen's Association of Atlantic City, who are co-operating with our committee to make our show a tremendous success

> Special Exhibition Committee. MAURICE FULD, Chairman. Mrs. B. Hammond Tracy, Mr. Arthur Cowee, Mr. Geòrge W. Kerr.

### AMERICAN DAHLIA SOCIETY SHOW.

At the Museum of Natural History, New York City, September 24, 25, 26, 1915, we expect to have the greatest variety and best collection of dahlias ever gotten together anywhere in all their different types and classes. New seedlings and some of the newer varieties that have been either grown here or imported and not hitherto exhibited. will be shown for the first time at this meeting. There will be some seven hundred or eight hundred varieties grown by Prof. F. H. Hall, of the New York Experiment Station at Geneva, with other trial and experiment lots from other sections. We shall aim to have some one present who will explain the planting, growing and handling of dahlias for the garden. The Executive Committee have requested the retail florists to put up an exhibit of their decorative art and skill in showing the possibilities of this beautiful, many colored and exquisitely shaped flower. Each and every one will be given space free of charge to put up whatever they wish in table decorations, bouquets, baskets and vases of any design that will show the possibilities of the dahlia for ornamental and design work in its season.—RICHARD VINCENT, Jr., President.

### MORE PROMISING FOR THE FUTURE.

Biffkins—Has our congressman done anything for the district?

Wilkins—He sent us nothing but seed this season, but next year he promises we'll get spades, rakes and garden

### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

G. X. AMRHYN, Pres., New Haven, Conn.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

### ASSOCIATION NOTES.

At this writing (July 27) it looks as if we would fail to have the 100 passengers necessary for the special train from Chicago to San Francisco.

In the event that this happens the party will be assigned to specal cars attached to regular trains, and the only material change in the itinerary announced will be as follows: August 12 leave Spokane at 8:15 p. m., instead of at midnight; arrive at Seattle on the 13th at 8:45 a. m. instead of at noon

An error occurred in the preliminary announcement as to the date the party will leave San Francisco, which will be at 8 p. m., on the 25th, in lieu of 7:45 a. m. on the 22nd, as announced. The transportation committee changed their minds in this particular, and overlooked advising the secretary, hence the mistake.

Present indications are that about 75 people will join the special party via the Pacific Northwest. Chairman Merkel, of the transportation committee, has a party of 25 signed up from the New York district, and at least 50 others will join the party

at Chicago, Minneapolis and points westward.

Returns in the hands of the secretary up to July 28 show that the following will be in the party: G. X. Amryhn, of New Haven: Fred C. Green, of Providence; Miss Una Keith, of Bridgeport: Hermann Merkell, John D. McEwan and J. J. Levison, of New York; M. C. Ebel, of Madison; all starting from New York. At Chicago there will be H. S. Richards, J. H. Prost, Walter Wright, Theo. Gross, of Chicago; Alex Fiske, of Racine; Dan H. Ellis, of Saginaw; Eugene Goebel, of Grand Rapids; E. P. Griffin, of East St. Louis. At Minneapolis there will be Theodore Wirth, C. A. Bossen, L. P. Jensen, of St. Louis; C. B. Wolf, of Hibbing, Minn.; Geo. Champion, of Winnipeg, and several new members which Mr. Wirth is lining up. At Spokane there will be J. W. Duncan and Carl Fohn, of Colorado Springs. with possibly several others of the Colorado delegation. At Seatthe there will be J. W. Thompson, R. W. Cotterill and several new members, including W. R. Reader, of Calgary; W. S. Rawlings, of Vancouver, and John Gibson, of Bellingham. At Portland E. F. Mische and Jas. O. Conville will join the party. F. S. Mulford has been migrating on the Coast for some time, and will join the party at the convention. This list is not complete, and there are many who are going by direct route to San Francisco, and will make the return trip with the party.

Here is briefly what the party may expect in the way of entertainment at stop-over points en route

At Chicago: Eastern party will be met at trains and taken for all day auto tour of all boulevards of the Lincoln, West Park and South Park systems, with luncheon served at Lincoln Park. Party delivered back to train for Minneapolis at 6:30 p. m.

At Minneapolis: Party will be met at train at 8 a. m., and taken to breakfast at Elks Club. Then off on all day auto tour of all boulevards and parks, nursery, bath-houses, etc. Paving plant and dredger plant in operation will give demonstrations. Luncheon at Minekalıda Club. Supper, Minnehala Park, and special evening concert at Lake Harriet Roof Garden; then the autos to the train. Mr. Wirth and the Minneapolis Park board, with their famous spirit of hospitality, have planned something for every minute of the stay in the city, and it will sure be one big day.

At Spokane: No information at hand at this time, but J. W. Duncan is working on a day's program that will not be lack-

ing in any respect.

At Seattle: Autos will be at train for all day auto tour of parks and playgrounds, and the scenic Lake Washington Boulevard system, with steamer ride on Lake Washington, picnic lunch at Woodland Park, informal dinner at Scattle Commercial Club, and evening theatre party.

At Tacoma: Party will be met at steamer from Seattle, and taken for afternoon auto ride, with picnic supper in the famous

Point Defiance Park. Evening free.

At Portland: Party will be met at train by autos, then off on auto tour of the new Columbia River Scenic Highway, along which is leated the 14,000 acre reserve recently turned over to Portland Park system by the United States government. Luncheon will be served en route, and party returned to evening

There will be quite likely a lively contest in connection with

the choice of place of next meeting. Inasmuch as there has been quite an expression in previous years that we should hold a convention in the South, several southern cities are going to get busy this year.

St. Louis was the first to send in an invitation, then came Memphis with a bunch of documents from all officials from the governor down, and then came New Orleans with all sorts of credentials, and they will also have representatives at the convention to press their claims, something they have never had before. There is a possibility that Chicago will also extend an invitation.

The Special Park Commission of Chicago comes to the front this year by sending its superintendent, J. H. Prost; secretary, Walter Wright, and superintendent of playgrounds, Theo. Gross, to the convention. South Park used to be the whole show in Chicago in this respect, but this year they have taken a back seat

Here is just a little tip to those who attend the convention. The people of San Francisco are rather sensitive about their city being called "Frisco," and don't like the abbreviation a little bit, so remember it is San Francisco.

The secretary at this time has ten applications for membership in his hands, five of which he secured himself as per promise We hope that our members are coming to the convention with signed applications in their pockets, as we need more members.

### PROPOSED AMENDMENTS TO CONSTITUTION AND BY-LAWS.

Article 1, Section 1. To be amended to read as follows: Section 1. The name of this organization shall be The American Park Association.
Article 2, to be amended to read as follows:

### ARTICLE H. MEMBERSHIP.

Section 1. The Association shall consist of Senior, Jnior, Associate, Sustaining and Honorary members.

Section 2. Senior Members. A Senior member shall be a person of at least five (5) years' practical experience as superintendent, assistant superintendent, landscape architect or engineer, forester or other park executive of a public or private park or park system, or a specialist in arboriculture or forestry, or whose chief employment shall be as engineer or designer in the creation Training, experience and ability shall be prime requisites to entitle applicants to recognition as Senior members, and all applications must be approved by the executive committee.

SECTION 3. JUNIOR MUNIERS. Qualifications for Junior membership shall be the same as for Senior members, except that five years' experience or service shall not be required. Persons admitted as Junior members may become Senior membrs at such time as they can qualify, by making application, approved by the executive committee, at any annual session, and if approved, shall be classified thereafter as Seniors.

Section 4. Associate Members. Park commissioners, secretaries or other officials directly connected with park or recreational work or persons interested in or connected with horticulture who may be deemed desirable as members, shall be eligible as Associate members, subject to approval of executive committee and annual convention: provided, that officials shall cease to be members one year after retirement from public service except as otherwise provided herein.

Section 5. Sustaining Members. Park commissions or other governing bodies, which contribute ten dollars (\$10) annually to the Association, shall be enrolled as Sustaining members, and shall be entitled to the publications and information service of

the Association.

Section 6. Honorary Members. Persons who have by their work or writings greatly furthered the interests and objects of the Association, may be designated as Honorary members, upon unanimous recommendation of the executive committee and unanimous approval of the annual convention.

Section 7. All applications for membership shall be submitted to the executive committee for recommendation, prior to submission to the annual convention for acceptance or rejection. The president and secretary shall, however, be empowered to accept

and enroll Sustaining members at any time.

Section 8. Senior or Junior members, who may retire from public service and take up other professions, shall cease to be such members one year after such retirement, but may continue their membership as Associate members if they so elect, and should they return to public service, automatically resume their former classification upon proper notification.

Article 3, to be amended by adding a new section as follows:

Section 3. Senior members only shall be eligible for election to office in the Association, but Junior or Associate members may serve on committees.

By law amendments to read as follows:

No. 1. MEETINGS. The annual meetings shall be held at such time between August 1 and October 1 of each year as may be decided upon by the executive committee. The place of meeting shall be determined by vote of the annual meeting, following recommendation by the executive committee.

No. 4. Election of Officers. Officers shall be elected at each annual session as follows: A nominating committee of three shall be appointed by the president at the opening session, which committee shall later in the session submit a list of names of at least two persons for each office, which list and the names of such

other persons as may be placed in nomination by the convention, shall be voted upon. The vote shall be by ballot, and the persons receiving a majority of the vote cast shall be declared elected.

No. 7. Dues and Fees. (A) Applicants for membership in the Association shall pay a fee, with application, of ten dollars (\*10), which fee shall also cover the first year's dues.

Annual dues for Senior, Junior and Associate members shall

be \$5, payable in advance.

Dues for Sustaining members shall be ten dollars (\$10) per year.

(C) The fiscal year of the Association shall be from August 1 to August 1.

No. 11. EXPULSION, ETC. Any member of this Association may be suspended or expelled for unprofessional conduct or conduct unbecoming a member of this Association by a two-thirds vote at any annual meeting, provided charges in writing against such member have been filed with the secretary at least 30 days prior to the annual meeting, the accused notified of such charges and an opportunity afforded the accused to appear or present a defense at the time of hearing the charges. This shall also apply to members who may violate any of the provisions of the constitution or bylaws.

# The Complicated Park Situation in Chicago

By J. H. Prost,\* Illinois

Consolidation of the fourteen separate park districts existing within the corporate limits of the city of Chicago has been a paramount issue for a number of years. A bill for this purpose has been passed by the state legislature three different times. The first time the measure was included in the new city charter, which was defeated by a referendum vote of the people.

The second time the bill was passed by the state legislature as an independent bill, but was vetoed by the governor.

And now, the bill has again been passed by the state legislature, has been signed by the governor, and will come before the people in April, 1916, for their approval. It is generally conceded that the people of Chicago will unite and cast a majority vote in favor of this measure. It will be necessary, however, that a majority vote be cast in favor of the bill in each separate park district to make the measure a complete success. But the bill is so drafted that those districts voting in favor of the bill will be consolidated, while those rejecting the measure by casting a majority vote against the bill will continue with their present system of government.

The people of Chicago are justly proud of their splendid parks, boulevards, playgrounds, bathing beaches and city forestry work, the growth of which has kept pace with the rapid development of the city.

The existence of this multiplicity of park governments is due largely to the antiquated city charter and equally as much to the rapid growth of the city.

The Chicago Bureau of Public Efficiency prepared a report in 1911 which gives an excellent account of what can be accomplished by this consolidation of our park governments.

The accompanying plan will show the locations of these various park districts, their relation to one another and the city.

According to this bill the governing power will be vested in nine commissioners to be appointed by His Honor, the Mayor, and approved by the city council. Three of these commissioners to be appointed from the north side, three from the west side, and three from the south side.

This consolidation will bring about a more equitable distribution of the park revenues and benefits to be derived therefrom.

The South Park district is governed by a commission of five members appointed by the Circuit judges to serve five years. This system is the largest of the family having supervision over Jackson, Washington, Marquette and Grand park; about thirty-three miles of boulevards and twenty park playgrounds such as Sherman, Ogden, McKinley, etc. The total park area of the South Park district is 2,039 acres. The district covers about eighty square miles of Chicago's area. The South Park commissioners have published several excellent reports. Their 1906 report contains very instructive plans of their elaborate park playgrounds.

The administration of the South Park system has been excellent, and has set the pace for the other park administrations.

My studies and observations of park maintenance and improvements has led to the most convincing conclusion that the administration of the South Park system has been thorough in every respect. The plantations, lawns, gardens and lagoons are always in excellent condition, as are the walks, drives, buildings, bridges, fences, etc. To accomplish this and maintain such a high standard of efficiency requires a liberal expenditure of money, but the people are enjoying the benefits of this liberal investment.

If the healthful recreation, social pleasure, aesthetic inspiration, civic beauty, education and physical relaxation could be measured in dollars and cents, the south park investments and expenditures would show an earning of dividends that would fully justify these expenditures. The South Park administration believes in giving a tree twenty cubic yards of fertile soil in which to grow. That is why the trees and shrubs growing in the south parks are beautiful and almost perfect.

This illustrates the thoroughness seen in every activity carried on throughout the entire system.

It is true the South Park commissioners have the largest income for park purposes, but they also provide the most extensive park service and maintain the largest park area and the greatest number of recreation features.

The West Park district is governed by seven commis-

<sup>\*</sup>Superintendent of Parks and Public Forester, Special Park Commission,

sioners appointed by the governor. They have supervision over Garfield, Humboldt, Douglas and seven small parks, about thirty miles of boulevards and seven playgrounds, covering an area of 808 acres. The district covers about 34 square miles of territory. The West Park district lacks the power to obtain sufficient funds to take care of the needs of the territory under its jurisdiction.

Recently an additional bond issue of \$1,000,000 was issued for the development of new park areas.

The Lincoln park district is governed by seven commissioners appointed by the governor. They have supervision of Lincoln park, twelve miles of boulevard, five playgrounds and one bathing beach, covering a total of about 340 acres. The district covers fourteen square miles of territory. The Lincoln Park Commission has been doing extensive work in reclaiming and filling in submerged lake land, thereby adding about 250 acres of park land.

The Lincoln Park Commission has another \$1 000,000 bond issue before the people, which will be used in carrying on their extension work.

The Special Park Commission consists of fifteen members, five aldermen appointed by the city council, and ten citizens appointed by the mayor.

Its jurisdiction extends over the entire city, having small parks or playgrounds in nearly every park district—thus overlaping all the other park systems.

The commission has supervision over eighty-seven small parks, twenty-four playgrounds, three bathing beaches, a municipal nursery, and the City Forestry Work. The total area of these small parks and playgrounds is about 450 acres. A large majority of these playgrounds are located on school property immediately adjacent to school buildings. The commission has taken steps to establish about fifty new playgrounds upon school property, for which purpose a \$300,000 bond issue was passed by the people. This commission is now build-

ing a two hundred thousand dollar (\$200,000) building at the new Clarendon bathing beach, and is negotiating for the purchase of an extensive bathing beach between Seventy-fifth and Seventy-ninth streets along the lake shore.

The ten additional park districts are all small. They have come into existence to satisfy the park needs of the communities not already within any of the larger park districts.

In 1895 the state legislature passed an act under which these park districts might be established. By this act any one hundred voters resident within a proposed park district can petition the county judges to order an election for the purpose of deciding whether the district described in the petition shall be organized into a park district.

Each of these districts is governed by five commissioners elected by the people.

The Old Portage park district covers three and one-half miles of territory and has one 40-acre park under its supervision. This park is only partially developed and new bond issues must be voted to complete the work.

The Northwest Park district covers about ten square miles of territory. It has three parks under its supervision, Mozart of 4½ acres, Kosciuszko park of 9¼ acres, and Kelvyn park of ten acres. Mozart is improved with a field house, Kosciuszko is being improved with a field house, while Kelvyn park has not been developed as yet. The Northwest Park district has issued three hundred and fifty thousand dollars (\$350,000) in bonds.

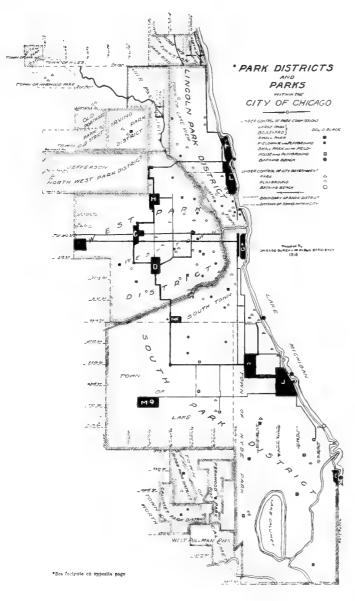
The Irvino park district covers about four square miles of territory, has a ten-acre park known as Irving park, which is well laid out with an excellent field house.

The Ridge Park district covers about ten square miles of territory, and has one improved park of ten acres with field house and outdoor swimming tank.

The River park district covers about six square miles



NEW BATHING PAVILION AT CLARENDON BATHING BEACH, CHICAGO, HT, IN COURSE OF CONSTRUCTION UNITS SUPERVISION OF SPECIAL PARK COMMISSION



of territory, and has about four acres of park land lying along the west bank of the north branch of the Chicago river.

The Fernwood park district covers about three square miles of territory, and has one improved park of about six acres.

The Ridge avenue park district covers about three square miles of territory. This commission spends annually about \$3,000. It has supervision of one and one-half miles of boulevard, and a one-half acre park. A \$35,000 bond issue has been passed and sold for the purpose of acquiring a larger park within the district.

The North Shore park district covers one and one-half square miles of territory. It has supervision of three miles of boulevard.

The West Pullman park district covers about one square mile of territory and has one 17-acre park now being improved. The commission has issued \$30,000 in bonds. They are now building a field house that will cost approximately \$26,000, which will give this community excellent service, and in this respect compares favorably with the \$300,000 field houses built by the South Park Commissioners. This field house contains a large combination gymnasium and assembly hall. Underneath this hall is an all year around swimming tank. Swimming tanks that can be used 365 days in the year

are now in greater demand than the out-door tanks used only during the summer months.

The Calumet park district has recently become a member of this family. It has about three square miles of territory and 15 acres of park land. The baby member of this family is the Ravenswood Manor park district. It covers about one-half square mile of territory and has no park acreage.

There remains about thirteen square miles of territory within the city limits not already organized into a park district. The people living in these districts of course enjoy the privileges provided by the park districts, for which they pay no tax.

The arguments in favor of consolidation are numerous and self-evident. In any event consolidation will ultimately be accomplished.

This gives a somewhat hasty account of our complicated park situation, which has been talked about a great deal but unfortunately is not thoroughly understood.

### CAVITY TREATMENT OF TREES.

(Continued from page 359.)

healing. The sections of cement should be as nearly square as possible, at least the length should not be more than twice the width. Each section should be finished with a flat surface, covered with roofing paper, and allowed to set before the one above is built; larger cavities sometimes requiring several days for completion. After the entire cavity is filled the paper should be cut even with the cement. The cement is then either left uncovered, or may be treated with a water-proofing material.

If the edge of the cavity is left in proper shape healing will begin very soon in strong growing trees, but much weakened trees do not heal as quickly. In some cases where the trees are very weak no healing takes place and the cavity should be cleaned out and refilled or in after years decay may set in around the edges and eventually destroy the tree as if it had not been filled. In fact all cavities should be watched to see that rot fungino not gain a new foot-hold and continue the destruction of the tree

Although cavity filling is important and is much more efficient than formerly, yet it is still very crude and much less satisfactory than prevention of decay in the beginning. Trees should be made disease-resisting by keeping them well fed, well watered and free from insects and fungi. The latter can be done very easily by spraying at the proper time with some good insecticide or fungicide. Do not allow trees to become weakened by neglect, and when found in this condition they should be built up by giviing plenty of fertilizer and abundant moisture.

"True worth is in being, not seeming, In doing each day that goes by Some little good, not in dreaming Of great things to do by and by. For whatever men say in blindness, Or in spite of their fancies of youth, There is nothing so kingly as kindness, And nothing so royal as truth.

We get back our mete as we measure:
We cannot do wrong and feel right,
Nor can we give pain and feel pleasure,
For justice avenges each slight.
The air for the wing of the sparrow,
The bush for the robin and wren,
But always the path that is narrow and straight
For the Children of Men."
—Selected.

# Concrete for the Country Home

(Continued from the July Number)

September and October are the months to prepare the hotbed. To avoid annual repairs, and to secure the best results build it of concrete. Locate the bed on the sunny, wind-protected side of a building. A four-sash bed is usually large enough except for commercial purposes. A standard hot-bed sash is 3 feet by 6 feet. Lay out the bed 6 feet 8 inches wide by 12 feet 10 inches long. The concrete walls are 6 inches thick. Dig the foundation trenches 2 feet 6 inches deep within the lines given above. Make forms of 1-inch lumber to carry the south (front) wall 6 inches and the north (back) wall 14 inches above ground. Forms are not required below ground level. The tops of the end walls slope to the others. Before filling the forms with concrete, test the dimensions of the bed by means of the sash. See that the sash lap the forms 2 inches on all sides.



ADMIRABLE LOCATION FOR COLD-FRAMES

Mix the concrete mushy wet in the proportion of 1 bag of Portland cement to  $2\cdot 2$  cubic feet of sand to 5 cubic feet of crushed rock, or 1 bag of cement to 5 cubic feet of bank-run gravel. Fill the forms without stopping for anything. Tie the walls together at the corners by laying in them old iron rods bent to right angles. While placing the concrete set 1/2-inch bolts about 2 feet apart to hold the wooden top-framing of the bed to the concrete; or make grooves in the top of the concrete for counter-sinking the sash to the level of the walls with an allowance of one-quarter inch for clearance. This can be done by temporarily imbedding in the concrete wooden strips of the necessary dimensions. During this operation, by means of blocks nailed to the strips, make provision for the center-bars described below. Remove the strips as soon as the concrete stiffens. Take down the forms after five days. The extra 25% inches in length of the bed is allowance for the three center-bars between the sash. These sash-supports are of dressed 1-inch stuff, shaped like a capital "T" turned upside down. The length of the stem of the "T" is equal to the thickness of the sash and the top is 3 inches wide. Sufficient materials for the concrete will be supplied by 14 bags of Portland cement, 11/4 cubic vards of sand and 21/2 cubic yards of crushed rock.

If the bed is to be used as a cold-frame, it is finished when covered with glass. For a hot-bed, dig out the dirt to the depth of 2 feet, tramp in 18 inches of fresh horse manure well mixed with leaves or bedding and cover it with 4 to 8 inches of rich soil. Bank the excavated earth around the outside of the bed. Put the sash in place, hang a thermometer on the inside and

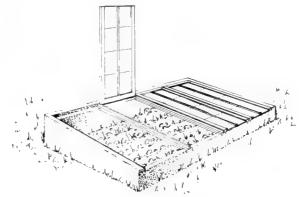
allow the bed to heat up. After a couple of days, when the temperature has dropped to 85 or 90 degrees, planting may be safely done.

During the midday, in bright weather, the bed will become too hot and must be ventilated for a short period by raising the sash on the side away from the wind. Water the plants in the morning only and ventilate later to remove the moisture from the foliage. On winter nights it will often be necessary to cover the bed with matting and boards.

It is a genuine pleasure to grow winter vegetables and flowers for home use.

### PREPARING THE HOTBED SOIL.

The preparation of the soil is one of the most important operations in hotbed work. And it is the main factor on which success depends, especially in the case with certain crops. A good hotbed soil is one that has a liberal supply of plant food in it, and at the same time is mellow and friable, so that the water permeates it uniformly and leaves it dry and loose on top. A soil with a large per cent. of silt and clay in it, if watered with a garden hose, tends to run together or bake and pack in such a way that the plants make rather a spindling growth if they grow at all. Such a soil necessitates frequent watering, and it is



THE HOTBED READY FOR ITS PREPARED SOIL

usually only the surface that becomes wet. On the other hand, any soil that has an over-abundance of humus in it will be so open and porous that the water will drain right through it and the soil will not retain sufficient water to supply the needs of the growing plants.

The best kind of a soil for hotbeds is one that has a foundation of good loam, and that is made loose by the use of rotted sods, rotted manure and sand.  $\Lambda$ clay soil must be opened up by the use of sand and fiber, while a distinctly sandy soil must be made more retentive of moisture by the application of liberal supplies of manure. The soil which the writer has used has given excellent results. Sods are skimmed from old pasture lands, where cattle have lain at nights for years; these are piled up in layers with stable manure and tobacco stalks. The tobacco stalks are high in potash and when piled in alternate layers with the manure and sods, the pile becomes a mass of decayed vegetable matter, and at the end of 12 to 15 months we have one of the best soils for starting seedling plants that can be found. Another method of preparing the soil for hotbeds is as follows: The sods are skimmed from old fields rich in vegetable

matter and placed in piles several feet deep, where they are permitted to lay for a year or two, and in the mean time they are forked over several times, hastening disintegration and decay. Sods treated in this manner will make excellent soil for starting plants anywhere. These rotted sods can be mixed with wellrotted manure if they are lacking in plant food.

Two parts of ordinary garden loam mixed with two parts of rotted horse manure and one part of sand makes a good hotbed soil. In all cases in preparing soil for hotbeds avoid the use of fresh manure, as it produces variable results and it gives a succulent growth to the young plants. The various ingredients should be thoroughly mixed and sufficient moisture added to the soil so that when it is crushed in the hand the ball of earth will retain its shape and crum-

ble when slightly rolled around.

The hotbeds should run east and west, with the slant toward the south. The pit should be excavated to a depth of from 20 to 30 inches, according to the severity of the weather where made. The excavation should be boarded up close and tight so as to keep out moles and mice, which are very troublesome when once they get started in the hotbeds. The pit should be filled to within one foot of the glass with fermenting manure, and then five or six inches of the prepared soil in which the seed are planted. The manure should be well tramped in before the soil is placed on it, this preventing any settling of the soil after the seeds are planted. Where flats are used in which the soil for the seeds have been placed, one or two inches of soil is all that is required over the manure, and the flats are set directly on this soil.

After the soil has been placed in the flats the sash should be placed over the frames, and thus remain until the soil in the flats has warmed up, by which time the weed seed will have germinated and burst forth. The soil should now be stirred about one inch deep and seed of vegetables and flowers planted.—

Legetable Grower.

### THE GASPLANT (DICTAMNUS ALBUS.)

Every pretentious country estate should possess a well-established gasplant, not the modern one, strung like a bead on a corporation line of public utilities, but the old-fashioned one that delighted our grand-mothers in the days of long ago, one that thrives without a meter and gives out its gas free of cost.

Such is Dictamnus albus (D. Fraxinella), bearing the common names of Dittany, Burning-bush, and Gasplant. The more recent introduction, the variety caucasicus, also known as D. grandiflora, is a stronger

grower, producing larger flower spikes.

Both are exotic species and to my mind should not be included in the wild planting, as their form and general appearance are not in keeping with the usual aspects of our native plants. If so used one would imagine at once that they were intruders "escaped from cultivation," as the botanists would say.

Their place in the border, informal planting and for dwarf hedges. In either situation the Gasplant is a most admirable herb, perfectly hardy, long-lived, possessing a foliage of a rich, glossy green that remains bright and fresh up to frost, and requiring no insect

powder to keep it tidy.

The books say—and they do not always tell the truth, but I hope this article does—that it thrives as well in the shade as in the sun. My experience does not coincide with this statement. I have a hedge of it some 50 feet long, which is partly shaded by a large

spreading Hawthorn whose branches reach over it but are fully 6 to 7 feet above the ground. There is plenty of diffused light over the plants, but no direct sunlight until late in the afternoon. The plants where shaded are fully 8 to 10 inches lower in height, and the flower spikes shorter and the foliage is not as luxuriant, as of those in full sun. I have seen the same result in other places.

The Gasplant makes an effective herbaceous hedge in open sunny situations. When in bloom—June and July—on well-established plants, the flower spikes, which are held well above the foliage, will reach a height of 3 feet. The spikes on D. caucasicus are some 6 inches wide at the base, tapering to a point a foot or more above. The white form is fine. When in bloom the plant possesses the stateliness and dig-

nity of the Lupines and the Foxgloves.

When the flowers fade the bloom, stalks should be cut well back, back a few inches below the main height of foliage, and just above a leaf stalk, thus leaving no stub to die back and turn brown. You will then have a campace if well-grown, glossy green hedge about 2 feet tall and almost as even in contour as if sheared. A little sheep manure worked into the soil every other spring is a great help to the plants.

So far I have been doing all the "gassing." Let us give the plant a chance to show why it received its

name

Again I must find fault with the books. All that I have read when speaking of this plant, state, "it is said that if a lighted match be applied to the flowers. a gas will ignite." I tried it for over twenty years and almost impoverished myself on wasted matches, and with no results. I came to the conclusion that the story

was a myth.

Late one afternoon Mr. E. O. Orpet strolled in to "Egandale" and, approaching my hedge, remarked: "This ought to be a good time to try the Gasplant," and placing a lighted match to the base of the flower stalk, I was astonished to see a flame rush to the top with a perfectly audible hiss. The myth became a reality. The secret was out, and I wondered why some one, who must have known it long ago, had not published the facts, since I, for one, have lost many opportunities of amusing the children—and we are all children in some things—by showing them a flower that produces a flame that does not injure itself.

How came this curious phenomenon to be discovered? It appears that an extremely volatile gas emanates from the main stem of the flower stalk, from the base of the blooms up to the top. It ignites only on warm, calm evenings, and seems to hug the main stem; consequently the lighted match must be held close to the stem and immediately under the lower tier of flowers. I had held the match to the outer rim of flowers, some 3 inches away from the gas, hence my failure. It is a singular fact that if the flower-stalk is cut and removed it will not ignite. Either species is slow in establishing itself, but once it gets a good start it will outlive the planter if given a fair show.

—W. C. Egan in Billerica.

When James A. Garfield was president of Oberlin College a man brought for entrance as a student his son, for whom he wished a shorter course than the regular one.

"The boy never can take all that in," said the father. "He wants to get through quicker. Can you arrange it for him?"

"Oh, yes," said Mr. Garfield. "He can take a shorter course: it all depends on what you want to make him. When God wants to make an oak, He takes a hundred years, but He only takes

two months to make a squash."—Exchange.

### WATERING PLANTS IN POTS.

Numerous are the inquiries as to the time and frequency of supplying greenhouse and other indoor plants with water. The curious part is that people seem to take it for granted that it should be done at stated hours and intervals. Those who water their plants at regular intervals and give each about the same quantity of water are pretty sure to kill some of the most valuable and delicate, as in a conservatory or other house full of plants there is scarcely one but will differ from its neighbor in the amount of water it requires, even if the plants are all of the same species. In a mixed collection the difference in the amount of moisture to be supplied is very considerable. Succulent plants-Aloes, Yuccas, Cacti, Mesembryantheniums, and such fleshy-leaved subjectsrequire little or no water from the beginning of November to the end of February; at least, such is the rule among good cultivators, though it is not wise to apply it rigidly to some of these plants, which are apt to shrivel and get hurt if allowed to become dust-dry. goniums, again, though they must not get quite dry, require to be kept comparativeley so in winter till their flower buds are formed. Plants in a vigorous growing state, or coming into flower, as some are at all seasons, will, of course, require to be will supplied with water; that is, they require to be as moist at the root as we keep growing plants in summer, only that one-third the amount of water and watering which would be required in summer will suffice to keep them moist at this season. It is impossible to lay down a rule which would be of the slightest use as to the time of watering, etc.

A healthy-growing plant in a pot, which is, as it ought to be, thoroughly well drained, cannot well have too much water when it is watered. Do not water a plant till it requires it, and then give a thorough soaking.

In hot summer weather plants should be examined every morning, and in most cases watered; and in the case of free-growing Fuchsias and other soft-growing plants in the height of their bloom it may sometimes be necessary to water well twice a day. After a little practice one can readily detect those that are dry by merely looking at the soil, but in cases where the specimens have been top-dressed, etc., and soil without roots in it lying on the top of that full of roots, and where bad watering has been practised, so that the earth is wet on the top and dry at the bottom, it may be necessary to strike the pot with the knuckles to see if it sounds hollow. This indicates want of water. When a crack is seen between the soil and pot it is an almost invariable sign that the plant wants watering. In such a case the soil should be first firmly pressed to the sides of the pot and a good soaking given. When the operator meets with a dry plant, instead of pouring a little water on the surface, as many do, he should fill the pot quite full, and if there is not a good space for water between the soil and top of the rim he should return to it and fill up again, so as to ensure a thorough soaking, for a plant wet on the surface and dry as dust down where its main roots exist is in the worst possible condition. In fact, it is not a bad plan to make it a rule to water gross-feeding and large specimens twice when they get dry.

Great harm used to be done by pouring on a little sip every morning, which resulted in the pots becoming covered with green slime and the soil often a mass of black mud. When rapid growth begins in the first bright days of March, the plants must be looked over every morning, and from that time to the end of October. Some people fill the pots with too much soil and do not leave sufficient space for a proper dose of water to be poured on; this

is a bad plan, and has caused the death of hundreds of valuable plants. As a rule, the pot should not be filled higher than within half an inch of the brim, and in the case of large pots an inch. When settled down there will then be sufficient room for water, and sufficient opportunity to give a good drink at once—not watering again till the plant really wants it. One good watering in midwinter will often satisfy a healthy specimen plant in full leaf for two or three weeks; ten weeks later it may require watering every day.—Gardening—(English.)

### PRODUCING NATURAL EFFECTS IN CON-SERVATORY PLANTING.

(Continued from page 367.)

We have attempted a little departure from the conventional method of planting green houses or conservatories, and we have throughout been confronted with the problem of giving the plants the conditions that they most needed and have then tried to add those touches that make plants better friends. And it seems that in the planting of any house that is worthy of the name conservatory the use of benches and stages and the growth of plants in tubs and boxes is almost inexcusable. Greenhouses or conservatories should be little bits of nature under glass, and the glass and everything necessary to hold it up should be the most inconspicuous part of the whole house. Such parts of the house as do necessarily come into vision should be in the nature of garden ornaments and should admit of proper framing with plants. In conclusion, let me add that the greenhouse which includes doors, glass, heating system, walks, benches (if any) should be constructed with very definite consideration of the plants that are to be grown in them, and they should be so constructed that they enter, from the inside at least very little into the perspective. An ideal conservatory, to my mind, is one that cannot be seen from the inside; and this is the ideal that the greenhouse man is striving toward.

# A COMBINATION OF HONEYSUCKLE AND CLEMATIS.

One could not wish for a combination of two vines better fitted for ordinary arbors than the Japanese Honeysuckle and Clematis paniculata. They both are free growers, but with care in pruning in Spring one can be kept from infringing on the other in the way of space. It is true both are light colored, the Honeysuckle creamy white, changing to yellow; the Clematis, white. But then their seasons are different, the Honeysuckle flowering in June, the Clematis in August. It is the different seasons of flowering that add to the utility of the combination; then the change of foliage and general difference of one from the other add to the charm of the whole.

There remains to be mentioned, too, the beautiful display the seeds of the Clematis make. They are usually numerous, and when they are ripening, and later, their appearance is charming, changing from green to a light brown, with the usual feathery appendage of Clematis seeds, which gives them a feathery appearance.

It happens that both have shining green foliage, keeping this color until late in Autumn. The sweet odor of both these vines is well known, betraying their presence when in bloom often before the plants are visible. When we add, both are among the hardiest of vines, are they not a splendid pair to plant together?—Joseph Mechan in Florists' Exchange.

# The Question of the Gardener

By a Gardener

Editor's Note. In the September number we will publish a letter, which first appeared in the London *Times*, on The Behavior to Gardeners, by an anonymous contributor, and later reprinted in book form.

### BY A GARDENER.

The question of the gardener was a lmirably dealt with in the notes from Mrs. Francis King's book, in the July Chronicle. Doubtless the editor will see to it that the question is kept alive for discussion. The prize offered by Mr. Everitt, president of the National Association of Gardeners, would be deservedly won if any essavist, in the competition that the association has arranged, pointed a way whereby trained professional gardeners could obtain that recognition and remuneration to which they believe themselves justly entitled. They would like to be accepted as of the same standing, professionally, as men engaged in other sciences. It would be an easy matter to prove, I believe, that our first rank gardeners are men that measure up in general knowledge to any of the men in these other professions, while their experience and rigid training are equally as exacting and severe. The difference between high-class trained gardeners and other professional men is that the latter are profit-makers, while the gardener is thought not to be. Can this latter idea be combatted—successfully combatted? (This I leave open for the present, at least). A second question in regard to the gardener is whether, through organization, he can protect himself, elevate his rank, assert his position and assure the true recognition of what he deems his influence to be in the life of the community or nation. The answer without having given the question all the thought it deserves-appears to be that craft guilds, when properly conducted, have been beneficial along those lines. The third matter concerns our system of training—or rather, want of it. This matter will certainly have to be thrashed out. If all the "big" successful gardeners are not themselves the sons of gardeners, at least they have been men with such an intense love of gardening and things of the outdoor world as to bring them in a class of geniuses—not supermen, like Dante, Shakespear, Newton, Napoleon, Mendelssohn-yet gifted men all the same, whom we call "born gardeners." are naturally apt and easily trained, and they rise to the top. Yet over and above natural inclination, bent, skill, genius—call it what you like, there is the necessity for a regular drilling, discipline, schooling. Do our gardeners get it? Are they trained in the necessary science, literature, art, and business pertaining to gardening. Are they educated in what the fashionable world lays great stress upon—correct speech and manners? Gentlemen, the question enlarges too much to be discussed in any other than a more cursory, perfunctory, superficial manner in any one issue of the GARDNER'S CHRONICLE. The professional horticultural societies might do well to lay aside all else and thrash out this subject in a series of meetings. And then what? Yes, what?

### BY AN EMPLOYER.

The extracts from the book, "The Well-Considered Garden," by that very estimable lady, Mrs. Francis King, and your editorial on the same, published in your July number, was read with keen interest by myself and, no doubt, by many other "estate" owners of my calibre. While agreeing that, if studied with a reasonable degree of intelligence, "The Ouestion of the Gardener" is not

antagonistic to either the cause of the employer or the employee, and fairly presents the situation as it exists today in this country, is, however, such a propaganda. as you suggest should arise from the agitation of the subject, not likely to be counterbalanced in the good it may accomplish by the dissatisfaction it may create through misinterpretation among men, who are at present perfectly content and satisfied with their surroundings and possessions? I need only cite my own case, in all probability not an isolated one. I employ what you class a working garderer, and I think he is correctly termed, although he subscribes himself superintendent of my estate, which is a little country place of fifteen acres. modern dwelling, garage, barns, poultry runs, and the gardener's cottage complete the buildings. Two cows and two horses constitute the cattle. One of the horses is used for working the farm, which consists of a few acres under cultivation to provide fodder for the cattle, and the other is at the gardener's disposal to do his chores at the village during the week, and to take his family to meeting or on a pleasure jaunt on Sundays. The balance of the place comprises the vegetable and flower gardens and a few fruit trees. And I must not forget our glass range, which consists of quite a complete block of cold frames. During the busy or growing season, my gardener has all the necessary help he requires, usually Italian labor, as it is difficult to secure any other in our community. Certain months of the year he manages the estate alone, calling in occasional help when needed. I never directed him in this, as he is a faithful and conscientious worker, and I have given him free hand to supervise the place since he has been with me.

The family is on the place for about eight months of the year, during which period he supplies the house with vegetables, milk, poultry and flowers, and the rest of the year he has simply to provide for himself and family.

My superintendent's salary falls well below the \$150 mark, which you specify should be the minimum wage for an estate manager. I pay my gardener seventy-five dollars a month and include a cozy cottage, heat, light, vegetables, milk and poultry, so that practically his salary includes his household maintenance, for my gardener's family is so fond of chicken that his meat bills must be nominal.

My gardener has never complained of being dissatisfied with the remuneration he receives for his services, and I am quite convinced that there are few skilled mechanics in our state who are better off at the end of the year than he is. And how many attorneys, physicians and clergymen are there in the small cities and towns who can lay claim to seventy-five dollars a month above their expenses?

Now, I am quite certain, that if I would deprive my gardener of his self-applied title superintendent and would designate him as a working gardener, he would soon become discontented with his position, even if everything else connected with it were agreeable to him. On the other hand, should he become interested in your propaganda, for I regularly pass the Chronicle over to him after I have read it, he may become imbued with the idea that he is a very much underpaid employee, which be does not now seem to think, nor do I believe he is. It really seems to me that The Question of the Gardener and his compensation is a subject that can never be universally adjusted, but is one that is controlled entirely by individual conditions and surroundings.

Niay I suggest that a proper classification of the different titles of gardeners, properly enforced, may be helpful to their profession and that it should be undertaken by them in their campaign of education.

"There is no room for envy in the heart of a man whose life is consecrated to interests larger than his own. He who is trying to serve not himself, but the world, will not be jealous of those whose efforts in the same direction are crowned by higher achievement. If, when I have done my best, the quality or quantity of my work remains below the average, that is cause for regret; but if there is some one whose performance rises far above the common level, I ought to be glad that the abundance of his success balances the deficiency of mine. I shall be glad if I love the cause for which I labor more than my own profit or renown."

### QUERIES and ANSWERS

If a bonce of expentest give an time implished for the solutes, and is, by instituting a query of a constant experience of a constant experience. It is an arranged or the solutes of the process of the defore  $\chi$  of the left to be the  $\chi$  of  $\chi$  of the helping each then,  $\chi$  is  $\chi$ , and against this  $\chi$  of standard  $\chi$ .

Will named varieties of Sweet Williams planted near together, i. e., in bed form, mix, or will they come reasonably true from seed saved from the plants?

Will Asters planted in bed or hedge form mix or come true

from seed saved from plants so situated?

New York. C. F. B.

In answer to above query regarding different varieties of Sweet Williams and Asters being planted near each for seed saying, unless the flowers are protected with mosquito netting or other suitable covering from bees and insects the poll-n would undoubtedly be transferred and in that way the colors would become mixed.

New Jorsey.

I have a flower horder which is planted at present time with honeysuckles and paconias. In this border also are three Norway Maples whose roots take quite a lot of nourishment from the plants underneath them, hence they do not flower very freely.

My employer is anxious to have me plant this border with something that will give us better results in flowering, if pos-

sible, and still retain the Maple trees.

Can any reader of the "Gardeners' Chronicle" advice me what I could do under the circumstances? This border can be well supplied with water in dry weather. In summer, of course, it is very shady owing to the overhanging Maple trees.

Co:n.

In answer to above query about border with maple trees: it is almost impossible to get satisfactory results from flowers planted under maples, and I would recommend planting vinca miner thickly over the whole ground. This flowers beautifully in spring and carpets the ground with rich shining green foliage at all times.

Massachusetts.

EDWIN JENKINS.

Can you explain the cause of grapes under glass shanking or shriveling up? I have been advised that poor drainage or too rend watering is often responsible and it has been suggested that they be given a rest from watering. Our dramage is not faulty but I did give less frequent waterings this season than last, but the trouble has again appeared.

Penna.

Shanking grapes have given considerable annoyance to grape growers, and many a promising crop has been practically de-stroyed through shanking. This usually occurs during the color-ing process. Stanking can be brought on through different causes: too much water at the roots or the reverse would be favorable towards bringing on the trouble. Exhausted borders or poor drainage also would be a cause or a severe check in any shape or form would be an incentive toward shanking. However, should the trouble be with the borders, such as imperfect drainage, or

poor border, the only tensors would be to make a fresh stut. that is, renew the folder and plant young vines. I maintain there is more shanking brought on through poor dramage than any other cause.

New Jersey.

WM. TURNER.

Kindly inform me what is the cause of my geranium plants being affected like the specimen leaves I am sending you, and what remedy is there to rid them of this disease.

The leaf starts to curl slightly then immediately it is attacked by brown spots, turning to black; then the leaf turns yellow and drops off the plant. The plants that are trouvled with this disease are useless as the flower buds turn black and do not bloom. New York, J. M. D.

The geranium leaves received are affected with what is commonly known as geranium spot, an affliction which was generally supposed to be a fungus disease known as stigmanose, but during the past year, since some of the agriculture leparements have become interested and have taken it up there seems to be some dispute as to whether it is the result of a fungus or the result

of injury by their or aphis.

The trouble in the summer almost invariably makes its appearance during a very warm and sultry spell of weather; the leaves will at first show light yellow spots on top which gradually develop until there is a general spotting of the leaves until they turn yellow and finally die and fall off, which spoils the looks of the beds as well as weakening the plant. It will sometimes almost denude a bed of leaves and not trouble in the least geraniums planted in vases near by where they are more exposed to the air and dry out more readily. The trouble usually disappears just as soon as the weather clears and gets cooler, that is the new growth will be free of spots. It is best to keep all yellow leaves picked off and the plants well fed with a good liquid manure, so as to promote a new healthy growth; light sprayings of Bordeaux mixture will help to keep the spot in check and yet the use of it will injure the looks of a bed by spotting the leaves.

In the greenhouse it will make its appearance in any place where the plants are kept over wet, or on any that are allowed to become badly pot bound, during the short days of winter, more especially in the early spring when only light firing is done and the dew is allowed to gather on the foliage during the night. Then again it will come on a bench that is pot bound and becomes very dry and, the idea being to hold them back, in watering only a sprinkling of the foliage is given, wetting it and not the soil at the roots. It would seem then that the foliage absorbs more of the moisture than it can contain, causing a swelling and bursting of the under tissue of the leaf which allows the fungus to enter and develop, thereby causing the spot and eventually de-

stroying the leaf

As a preventative in the houses do not keep them too warm at nights, as that will encourage a soft growth which is more susceptible to disease. Forty-five to 50 is warm enough, on bright days it can go higher, 75 to 80 will not hurt, if air can be given at the same time. Do not water at all unless the plants are dry enough to take a good watering, then put enough on to wet the roots as well as the tops; above all things avoid as far as possible the foliage, being damp at night, give plenty of air: always remember that the important necessary essentials to the growing of good geraniums is fresh air and sunshine.

While this is not intended to be a scientific discussion of the subject I trust it will help your subscriber to rid his geranium

of the trouble.

Maryland.

R. A. VINCENT

### Of Interest to Estate Owners

The National Association of Gardeners maintains a Service Bureau which is at the disposal of all who may require the services of efficient gardeners in their various capacities.

The association seeks the co-operation of estate owners in its efforts to secure opportunities for those engaged in the profession of gardening who are seeking to advance themselves. It makes no charge for services rendered. It endeavors to sup-ply men qualified to assume the responsibilities the position may call for.

Make your requirements known to

M. C. EBEL, Sec'y, National Association of Gardeners, Madison, N. J.

zanortananaa en menumunana – a arts. - os munsanarinamennaren habanahtanerrannun aramannun iz

### NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st., N. Y.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Dahlia Society. Joseph J. Lane, secretary, 11 West 32d st., N. Y.

American Gladiolus Society. L. Merton Gage, secretary, Wellesley, Mass.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 40 West 28th st., N. Y.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

Women's National Agricultural and Horticultural Association.

Miss Margaret Jackson, secretary, Englewood, N. J.

### LOCAL SOCIETIES

Bernardsville Horticultural Society.

W. G. Carter, secretary, Bernardsville, N. J. First Monday every month, Horticultural Hall, 7:30 p. m., Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Cleveland Florists' Club.

Frank A. Friedley, secretary, 95 Shaw avenue, East Cleveland, Ohio. Second Monday every month, Hollenden Hotel, Cleveland, Ohio.

Cincinnati Florists' Society. Alex. Ostendorp, secretary. Cincinnati, Ohio. Second Wednesday every month, Jabez Elliott Flower Market.

Connecticut Horticultural Society Alfred Dixon, secretary, Wethersfield, Conn. County Building, Hartford, Conn., 8 p. m.

Detroit Florists' Club. R. H. Wells, secretary, 827 Canfield avenue. Detroit, Mich.

Third Monday every month, Bemb Floral Hall.

Dobbs Ferry Gardeners' Association. B. Harms, secretary, Dobbs Ferry, N. Y. Last Saturday every month.

Herbert G. Cottan, secretary, Wappinger | Morris Country | Florists' and Gardeners' David Rust, secretary, Broad and Locust | Society. | Society. | Sts., Philadelphia, Pa.

May and June. Poughkeepsie, N. Y.

Elberon Horticultural Society.

George Masson, secretary, Oakhurst, N. J. First Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Essex County Florists' Club.

John Crossley, secretary, 37 Belleville avenue, Newark, N. J.

Third Thursday every month, Kreuger Auditorium.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass. Second Tuesday every month.

Florists' and Gardeners' Club of Rhode Island.

William E. Chapell, secretary, 333 Branch avenue, Providence, R. I.

Fourth Monday each month, Swartz Hall.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Gwynn Falls Park, Sta. F, Baltimore, Md.

Second and fourth Monday every month. Florist Exchange Hall.

Gardeners and Florists of Ontario.

Geo. Douglas, secretary, 189 Merton street. Toronto, Canada.

Third Tuesday every mouth, St. George's Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Lake Geneva Gardeners' and Foremen's Association.

Raymond Niles, secretary, Lake Geneva Wis.

First and third Tuesday every month, Oct. to April; first Tuesday every month. May to Sept., Horticultural Hall,

Lenox Horticultural Society. G. H. Instone, secretary, Lenox, Mass. First Saturday every month.

Los Angeles County Horticultural Society. Hal. S. Kruckeberg, secretary, Los Angeles. Cal.

First Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachu- A. R. Kennedy, secretary, Westbury, L. I. setts avenue, Boston, Mass.

Menlo Park Horticultural Society.

Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Minnesota State Florists' Association. Second and fourth Fridays every month, Gust, Malmquist, secretary, Fair Oaks, Minneapolis, Minn. Third Tuesday every month.

> Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Fourth Friday every month, Red Bank.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Second Wednesday every month except Edward J. Reagan, secretary, Morristown,

Second Wednesday every month, except July and August, 8 p. m., Madison, N. J.

Nassau County Horticultural Society.

Harry Jones, secretary, Glen Cove, N. Y. Second Wednesday every month, Pembroke Hall, 7 p. m.

New Bedford Horticultural Society.

Jeremiah M. Taber, secretary, New Bedford. Mass.

First Monday every month.

New Jersey Floricultural Society.

Geo. W. Strange, secretary, 216 Main street. Orange, N. J.

First Monday every month, Jr. O. W. A. M. Hall., 8 p. m.

New London Horticultural Society.

John Humphrey, secretary, New London, Conn.

Second Thursday every month, Municipal Bldg.

New Orleans Horticultural Society.

C. R. Panter, secretary, 2320 Calhoun street, New Orleans, La.

Third Thursday every month, Association of Commerce Bldg,

Newport Horticultural Society.

Wm. Gray, secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club.

John Young, secretary, 54 W. 28th street, New York.

Second Monday every month, Grand Opera House.

North Shore Horticultural Society.

Leon W. Carter, secretary, Manchester, Mass.

First and third Fridays every month.

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society.

J. O'Brien, secretary, Mt. Kisco, N. Y. Third Thursday every month, except June to August, at 8 p. m.; December to February, 3 p. m.

Oyster Bay Horticultural Society.

Fourth Wednesday every month. Oyster Bay, N. Y., 7:30 p. m.

Pacific Coast Horticultural Society.

W. A. Hofinghoff, secretary, 432 Phelan Bldg., San Francisco, Cal.

First Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society.

Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month.

Paterson Floricultural Society.

Sebastian Hubschmitt, Jr., secretary, 61 Seventh ave., Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society.

Third Tuesday every month, Horticultural Hall, 8 p. m.

John Ainscough, secretary, 4 Chestnut st. Paterson, N. J.

First and last Friday every month, Working Man's Institute, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

First Tuesday every month, Horticultural Hall, 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. First Tuesday every month, Fort Pitt Hotel.

Rhode Island Horticultural Society. E. K. Thomas, secretary, Box 180, Kingston R. I.

Rochester Florists' Association. II. R. Stringer, secretary, 47 Stone street, Rochester, N. Y.

Second Monday every month, 95 Main street, East.

Shelter Island Horticultural and Agricultural Society.

First and third Thursdays every month

Southampton Horticultural Society. Julius W. King, secretary, Southampton. N. Y.

First Thursday every month, Oddfellows

Tacoma Florists' Association.

F. H. Atchison, secretary, South 50th and East F street, Tacoma, Wash.

Third Thursday, Maccabee Hall, 11th and C streets.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarrytown, N. Y.

Last Tuesday every month, 7:30 p. m.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y.

First Wednesday every month.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington. D. C.

First Monday every month.

Yonkers Horticultural Society.
Thos. Mahoney, secretary, Yonkers, N. Y First Friday every month, Hollywood Inn., 8 p. m.

Westchester and Fairfield Horticultural

Society.

J. B. McArdle, secretary, Greenwich, Conn Second Friday every month, Doran's Hall. Greenwich, 8 p. m.

### GARDEN CLUBS

International Garden Club. Miss Mary M. Kearney, secretary, 123 East 53rd street, New York.

Club House, Bartow Mansion, Pelham Bay Park, N. Y.

The Garden Club of America. Mrs. J. Willis Martin, president, 1721 Locust street, Philadelphia, Pa.

The Garden Club of Alma, Mich. Mrs. E. J. Lamb, secretary, 803 State street. Twice a month at members' residences.

People's Park Cottage Gardeners' Associa- The Garden Club of Alleghany County, Pa.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich. Miss Annie Condon, secretary, 920 Um versity avenue.

The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle, secretary, Gladstone, N. J.

Second and fourth Thursdays, middle of April to November. August excepted.

The Garden Club of Cleveland, Ohio. Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Third Wednesday every month, Public Mrs. F. K. Holister, secretary, East Hamp-Library, Providence, R. I.

> The Park Garden Club, of Flushing, N. Y. Mrs. John W. Paris, president,
> Flushing, N. Y.
> Second and fourth Mondays, members

homes.

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob. Conn.

At members' residences.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson P. O., Md. First and third Thursdays, April to

December at members' residences.

The Gardeners of Mont. and Dela. Counties,

Miss Elizabeth D. Williams, secretary, Haverford, Pa. At members' residences.

The Weeders' Club, Pa. Miss Ellen Winsor, secretary, Haverford, First and third Wednesday at members'

residences.

The Garden Club of Lake Forest, Ill. Mrs. Tiffany Blake, president. Lake Forest, III.

The Larchmont Garden Club, N. Y. Mrs. Edgar Park, secretary, Larchmont, N. Y. First Thursdays.

The Garden Club of Lawrence, L. I. Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass. Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York. First and third Mondays, June to Octo-

ber at Lenox.

Lewiston and Auburn Gardeners' Union. Mrs. George A. Whitney, secretary, Auburn Me.

The Garden Club of Litchfield, Conn. Mrs. Henry S. Munroe, secretary, 501 W 120th street, New York. Second Friday, June to October at Litchfield.

The Garden Club of Michigan. Miss Sarah W. Hendrie, secretary, Grosse Pointe Farms, Mich.

At members' homes. Two Spring and one Fall Shows. Fifty-third street. New York. The Millbrook Garden Club, N. Y.

Mrs. F. H. Denny, president. Sewickley, Pa. Mrs. Keyes Winter, secretary, 125 E. 78th street, New York. Meet at Millbrook, Dutchess County, N. Y.

The Bedford Garden Club, N. Y. Mrs. Penjamin W. Morris, secretary Mt. Kisco, N. Y.

The Garden Club of New Canaan, Conn. Mrs. Francis H. Adriance, secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I. Miss Dorothea G. Watts, secretary, New port, R. I.

Annual Meeting, August. Others when called. Five monthly summer shows.

The Newport Garden Club.

Mrs. Chas. F. Hoffman, president, 620 Fifth avenue, New York.

The Garden Club of New Rochelle, N. Y. Mrs. Lucius W. Hitchcock, corresponding secretary, Premma Point Park. Members residences and Public Library. Shows monthly, May to November.

The Garden Club of Norfolk, Conn. Philemon W. Johnson, secretary, Norfolk, Conn.

Second Wednesday each month at Public Library.

North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa. Miss Ernestine A. Goodman, secretary, Chestnut Hill.

The Garden Club.

Mrs. Aubrey Pearre, Jr., secretary, Pikesville, Md.

The Garden Club of Ridgefield, Conn. Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York.

Twice monthly at Ridgefield. Also exhibitions.

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood, N. J.

Rumsen (N. J.) Garden Club. Mrs, Howard O. Borden, president, Rumsen. N. J.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md.

The Garden Club of Rye, N. Y.

Mrs. Samuel Fuller, secretary, Rye, N. Y. First Tuesdays, April to October. Also special meetings and Flower Shows.

The Garden Club of Seabright, N. J. Mrs. H. L. Cranford, secretary, Scabright, N. J.

The Shedowa Garden Club, New York. Miss Mary Young, secretary, Garden City, N. Y.

Second Wednesday each month at members' residences. Vegetable and flower shows, June and September. Correspondence with other clubs invited.

Short Hills Garden Club, N. J.

Mrs. C. H. Stout. secretary. Short Hills, N. J. Weekly at Short Hills Club House. Flower Shows April and June, and annual Dahlia Show.

# Shorburn's Seeds

W E probably n u m b e r among our customers more real gardeners than any other seed house.

This is due partly to the fact that we have been in business for more than a hundred years and our customers are very largely made up of those who have been told by others that our seeds and bulbs are reliable and safe to plant.

Those who "plant for profit" appreciate that the first cost of seeds and bulbs is not very important, yet our prices are usually no higher than others, and our exceptional facilities for purchasing often make them

We should like to send you our Bulb totalog It you will send us your name we will enter you on the list to be sent a copy as

### J. M. THORBURN & CO

Since 1802 53 Barclay St., through to 54 Park Place NEW YORK



The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W. 33rd street, New York.

Twice a month in summer at Southampton. L. L.

The Staten Island Garden Club, N. Y. Mrs. J. Harry Alexander, secretary, Rose bank, S. I.

Twice a month. At members' homes. Winnetka, Ill.

The Garden Club of Trenton, N. J. Miss Anne MacIlvaine, secretary, Trenton, N. J.

Bi-monthly meetings at members' resi-

The Garden Club of Illinois. Mrs. William G. Hibbard, Jr., secretary, Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.

Mrs. Morris Rutherford, secretary, Warrick, Orange County, N. Y.

Warrenton Garden Club, Virginia. Mrs. C. Shirley Carter, secretary, Warren ton, Va.

### HORTICULTURAL EVENTS

Fourth National Flower Show, under the auspices of the Society of American Florists and Ornamental Horticulturists, Philadelphia, Pa., March 25 to April 2, 1916.

International Flower Show, Grand Central Palace, New York, 1916.

American Gladiolus Society, Annual Show, show, Atlantic City, August 26-29.

Chrysanthemum Society of America, Annual Show, Cleveland, Ohio, November 10-14, 1915. Special Show, San Francisco, Cal.

Cleveland Flower Show, Coliseum, Cleveland, Ohio, November 10-14, 1915.

Chicago Fall Flower Show, Coliseum, Chicago, Ill., November 9-14.

American Institute, Annual Chrysanthemum Show, Engineers' Building, New York. November 3, 4, 5.

Bernardsville Horticultural Society, Anmual Show, Bernardsville, N. J., September

Connecticut Horticultural Society, Annuai Dablia Show, September 22-23, 191.

Dutchess County Horticultural Society, Annual Flower Show, Poughkeepsie, N. J. October 28-29.

Horticultural Society of New York, Annual Fall Show, November 4-7, 1915.

Lewiston Fall Exhibition, City Hall, Lowiston, Me., August 26-27.

Morris County Gardeners' and Florists' Society, Annual Fall Show, October 28, 29. Madison, N. J.

Nassau County Horticultural Society, Rose Show, Nassau Country Club, Glen Cove, L. I. Dahlia Show, October 7. Fall Show, October 28-29. Dahlia and Fall Show will be held in Pembroke Hall, Glen Cove,

New Bedford Horticultural Society, Dahlia Show in September, Chrysanthemum Show in November, New Bedford, Mass.

New London Horticultural Society, Chrysanthemum Show. November 3-4, 1915. New London, Conn.

Newport Garden Club and Newport Horticultural Society, Midsummer Show, August 12-13-14, 1915. Newport, R. I.

New Jersey Floricultural Society, Dahlia and Vegetable Show, Orange, N. J., October 4, 1915.

Oyster Bay Horticultural Society, Dahlia Show, October 5.6. Chrysanthemum Show. November 2. Oyster Bay, N. Y.

Paterson Floricultural Society, Annual Flower Show, September. Chrysanthemum Show, November. Y. M. C. A. Building, Paterson, N. J.

Monmouth County Horticultural Society. Annual Flower Show, Red Bank, N. J. October 27, 28.

Rhode Island Horticultural Society, September exhibition, September 16, 17. November exhibition, November 11, 12. Nar ragansett Hotel, Providence, R. I

Tarrytown Horticultural Society, Annual Fall Show, November 3, 4, 5, Tarrytown, N. Y.

Westchester and Fairfield Horticultural Society, Fall Show, Stamford, Conn., November 2-3, 1915.

If you are a member of a local horticultural society or a garden club and do not find the report of your association's meetings or other events of it in our columns, their omission is due to the fact that your secretary has not sent them in. Get after him!

### LENOX (MASS.) HORTICULTURAL SOCIETY.

There was a fine display of Sweet Peas at the Lenox Horticultural Society's meeting. held on Wednesday evening, July 14. George Foulsham, superintendent to W. B. O. Field, and Edwin Jenkins, superintendent to Giraud Foster, were both awarded a diploma for their display, comprising about thirty varie-Newport, R. I., August 18-19, 1915. Special ties each, and showing a high degree of show, Atlantic City, August 26-29. culture. E. J. Norman was awarded a firstclass certificate for a new rambler Rose named Annie Norman. The number of entries in the competition for school gardens has beaten all previous records and has gone over the hundred mark. For the society's Summer show, to be held July 27, 28, Messrs. Arthur Herrington, Madison, N. J.; Robert Scott, Pittsfield, and Fred, Heeremans. Lenox, have consented to act as judges. don McMillan, Harold Bryant and William Spraff were elected as committee of arrange-

LEWIS BARNET, Asst. Secy.

### NEW BEDFORD (MASS.) SHOWS.

The Peony and Rose shows of the New Bedford Horticultural Society proved to be very successful exhibitions, particularly gratifying to the committee in charge because of the increased interest in both the peony and rose as evidenced by the many new exhibitors among the amateurs. At the present rate of increase of exhibitors the society will soon have to find a larger hall, and as the peony, since the first exhibition three years ago, has taken a very strong hold on the flower loving public, it looks very much as though the show committee would have the difficult problem of new quarters on their hands.

One of the chief attractions at the peony show was a table of gloxinias from the Galen Stone place (Arthur Griffin, Supt.) and many were the compliments heard by the writer as to the quality of the flowers and the beautiful arrangement of the plants well supported as they were with cocos palms and maiden hair fern. Among the peonies H. E. Converse, (D. F. Roy, Supt.), was the leader, capturing for the second time the H. F. Michell silver medal for the best collection of peonies, while W. F.

Turner came in for the bronze medal for The Sweet Pea exhibition at the exposition collection of new varieties seen in the hall, were unable to be present, as they were bus andria Duff, Georgianna Shaylor, Therese, showed the finest collection of Japanese vamany choice blooms of the double sorts. Charles R. Price filled a whole table with German iris and well deserved the cup offered for the best collection of iris, any class, J. C. Forbes, F. G. Tripp, James McVicker and Pierre Nolet were among the other exhibitors having line blooms.

At the rose show Galen Stone again furnished one of the most attractive exhibits with his table of perennials splendidly grown and beautifully staged. Among the roses H. E. Converse held the lead in the open class and Miss Alice Stackpole of Mattapoisett, won the cup in the amateur class for the best display. Among the other features were the vases and baskets of Silver Moon and Dr. Van Fleet, staged by A. J. Fish, a vase of these two roses and Ruby Queen by W. F. Turner, a specimen bloom of Mabel Drew by the same exhibitor, and a display of Fran Karl Druschki and J. B. Clark by Pierre Nolet.

The judges were James Garthly and G. A. W. F. TURNER.

### MENLO PARK (CAL.) HORTICULTURAL SOCIETY

In the absence of the president, the meeting was opened by Vice-president Slade in the chair, with about 30 members present.

### The Greenhouse Builder's Test



WHAT a greenhouse builder has done in the past, what he is doing now, and what he is reputed to be capable of doing, these things constitute the only valid test of a builder's capabilities and claims.

Where an owner makes his selection of a builder on the above basis, the Metropolitan Material Co. organization can stand the test in a fashion which will make choosing easy.

Forty-four years at greenhouse construc tion has made us experts.

We flourish by comparison.

Put your greenhouse problems up to us. Let us submit plans and prices. We go Let us submit plans and prices. anywhere in the U. S. A.

### METROPOLITAN MATERIAL CO.

1396-1412 Metropolitan Ave. BROOKLYN, N. Y.

the same entry. The latter had the finest being the next day, several of our members showing Sr. de Louis Bigot, Lady Alex- preparing their exhibits, and, I might add, Menlo came in for the lion's share of the Mad. Jules Dessett, Belesaure Molph pizes awarded. D. Bassett, gardener for L. Rousseau, M. Martin Chauzae and many Stern; D. W. Slade, gardener for S. E. others of this style, J. H. Hathaway Spaulding; P. Ellings, of Lynch Nursery Co.; H. Homewood, gardener for Mrs. Jenrieties ever seen by the writer, as well as mings, and all members of the National Association of Gardeners, carrying off most of the awards.

As the entertainment committee had provided some refreshments for the evening the business of the meeting was hurried through. There were some nice exhibits for the monthly competition. J. Pinicka se-

G. D. TILLEY

Naturalist

"Everything in the Bird Line from a Canary to an Ostrich'

birds for the House and Porch Birds for the Ornamental Waterway Birds for the Garden, Pool and Aviary Birds for the Game Preserve and Park

I am the oldest established and largest exclusive dealer in land and water birds in America and have on hand the most extensive stock in the United States. G. D. TILLEY, Naturalist, Box 10, Darien, Coon.

MARTER STATE AND A TOTAL TOTAL STATE OF THE 
Plant for Immediate Effect Not for Future Generations

START with the largest stock that can be secured! It takes over twenty years to grow many of the Trees and Shrubs we offer.

Wm.Warner Harper Proprietor

NDORRA I

We do the long waiting -thus enabling you to secure trees and shrubs that give immediate rereadv.

Price List now

Chestnut Hill. Phila, Box O. Pa.



A UGUST is the month when gardens and lawns begin to show signs of wear and tear. Summer is starting on the down hill. Are you going to just sit back and let it go at that this year; or will you stir about a bit and see if something can't be done to prolong their vigor and further continue your enjoyment?
most plants, shrubs and lawns

need right now is some tangible encouragement in the form of soil enrichments.

They want some fresh food.

They want some new backbone building material.

They want more friability to the soil, more air and moisture about their roots. Any dependable gardener will tell you this

For accomplishing every one of

these requirements Alphano is ideal. It is a plant stimulant, a root food, a permanent soil builder.

Spread it on your lawn and rake it in. Bolster up the thin spots. It costs so little you can use it freely.

Send for the Convincement Book, which both shows and tells you exactly what Alphano will do for you, as proven by what it has been doing for others in the last

\$12 a ton in bags F. O. B. Alphano, N. J.



\$8 a ton by carload in bulk

nano Humus

17-G Battery Place, New York

cured 90 points for a fine Gloriana in a 7-inch pan. D. Slade secured 70 points for Illuminator Sweet Pea. T. Templeton se-cured 75 points for King White Sweet Pea. G. Nunn secured 80 points for a fine vasc of Clarkia.

The following committee were appointed to draw up a letter of condolence and for word it to the widow of James Bruse, who was an enthusiastic member of our society.

We are all boosting for a banner fall show

this year.

After the close of the meeting a smoker was enjoyed by the members until early morning, the following keeping their fellow members in jovial spirits with music and dancing: G. Ward, G. Nunn, J. Patterson, S. Myhlon, J. Aitken, O. O'Donald, J. Sinclair, J. Lynch and P. Copp.
PERCY ELLINGS, Sec.

### OYSTER BAY HORTICULTURAL SOCIETY.

The regular monthly meeting of the Oyster Bay Horticultural Society was held in Firemen's Hall, Oyster Bay, on Wednesday evening, July 28. The attendance was the largest of the season.

Mr. Jas. Bull was elected to active membership and Mr. William O'Keefe to associ-

ate membership.

The exhibition tables carried fine exhibits of Gladiolas, Dahlias, Phlox, Asters, Glocks, etc., in the flower line, also an interesting lot of vegetables and fruit. The president appointed Messrs, Robertson, Morrison and McIntosh as judges and report from them was as follows: Chas. Milburn, ten weeks stock, La France, C. of C.; Jas. Duthie, 20 varieties of dahlias, C. of C.; Jas. Buckham vase of phlox, honorable mention; John T. Ingram, vase of gladiolas, America, Honorable mention; John Sorosick, vase of gladiolas, Mrs. Francis King, honorable mention: Jas. Buckham, vase of gladiolas, mixed, honorable mention; Harry Gilson, vasc of gladiclas, mixed, thanks of society; Frank Kyle, 6 onions, honorable mention; Frank Kyle, string beans, honorable mention; F. Oliver, for vegetables, marrow squash honorable







mention: Arthur Patten, vase or "Snowdrift," society's prize: Arthur Patien, door fruit (12 varieties), assortment of blackberries, society's prize: An invitation was received from the Jas, Marmarole, encumbers, society's prize Oyster Bay Horticultural Society to join

cuting will be held on August 17 at the Saga. Further particulars of this event will be more Hotel, Oys'er Bay, rain or shire tickets for adults, \$1.50; children 50 cents. After the dinner there will be atheltic contests, games for children, etc. Many prizes have been offered by interested parties. The Nassau County Horticultural Society is expected to join us in this outing.

Prizes for the Autumn shows were received Schiff, Esq.

We extend an invitation to all our friends and neighbors to join in our outing.

A. R. KINNIDY, Secretary

### NASSAU COUNTY HORTICULTURAL SOCIETY.

July 14, President Westlake in the chair. A. Mackenzie, J. Adler and G. Hutton, were appointed judges for the evening and their awards were as follows: Dish of Rasp Jones. Jas. Holloway was awarded a Cul noted on the exhibition tables, which reliafter he got the wife."

Sales is the salestacking minimum meet in the first of the contract of the con

asters, thial terrificate for a collection of our

The onting committee reported trut the them in their annual outing August given at a later date.

The exhibits at our next meeting will be 12 spikes of Gladiola, 12 mixed Asters, and cars of Sweet Corn.

At the Sweet Pea show held in the tden Cove Neighborhood Building July 8, some time exhibits were staged. The following were among the successful exhibitors: Mrs.

JAMES GLADSTONE, Cor. Sec.

### THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

There was an interesting and well attended meeting of this Society held in the Society rooms in Doran's Hall, Greenwich, The regular monthly meeting of the Nas Sau County Horticultural Society was held m Pembroke Hall, Clen Coye, Wesnesday, Committee made their final report and were discharged with the thanks of the society, to her gardener: the members rising, Mr. Wm. Smith was Men Lammas also accorded the same honor. The Fall married, You've Show Committee reported progress, letters berries, first, Jas. Holloway: Dish of Red were read from a long list of friends of the the first gardener that ever lived had a Currants, first, W. D. Robertson; 6 Peaches, Society offering various prizes of cash, wite." Currants, first, W. D. Robertson; 6 Peaches, Society offering various prizes of cash, first, R. Jones. President Westlake's special silverware articles, and cut glass, which were (\$5) for three vases of Sweet Peas, first, H. accepted with thanks. A fine display was

ceived the following awards: Eucharis Amazonia, from William Morrow, Cultural Cercoheate; Centaurea Macrocephala, from on A. Hammiek, honorable mention; collection Sweet Peas from Robert Grummert. onorable mention; vase of Sweet Peas. fom Jeseph Tiernan, honorable mention; ase of Hardy Border Carnations, from John Andrew, honorable mention, who also received honorable mention for a fine vase Cl. lar elegans, Salmon Queen

The Outing Committee reported progress. The annual outing and games will be held at Edwards' Rye Beach Inn, Rye Beach, N. Y., Aug. 11, and will consist of athletic sports and a shore dinner. Dinner tickets will be \$1.50 a person. In the matter of dinner all may suit themselves. So come along and bring your families and friends. Those who will require the shore dinner will please notify Mr. Wm. J. Sealy. Byram Shore, Portchester, N. Y., as early as possible before the data of the outing that ample profore the date of the outing, that ample provision may be made. Games will start at 10:30 A. M. Dinner at 1 P. M. P. W. POPP, Cor. Sec.

A well to-do Scottish lady one day said

Man Lammas, I wonder you don't get married. You've a nice house, and all you want to complete it is a wife. You know

"Quite right, misses, quite right," said Tammas, "but he didna keep his job lang

### entropia i a de internadora de mais a sum estadora de mais entropia de la composição de la BEAUTIFUL WATER LILIES

Tricker's Water Lilies were awarded a gold medal at the International Show. New York, March 17th last. Write for booklet containing foll description and directors for garden culture, as well as for ponds, fountains, basis, etc.

WM. TRICKER, Box W. Arlington, N. J.

### HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

### D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America, Box 305 Dundee, Ill.

### IMPORTED ORCHIDS

If you contemplate buying imported stock this year write to me. JOSEPH MANDA, Orchid Expert, Seedsman and Florist WE:T ORANGE, N. J.

# Rose Growers With a Background of Fifty Years' Experience

The Conard & Jones Co. West Grove, Pa.

### Chrysanthemums Carnations—Roses

MODINE MERCHANIS INSURBINISHIN BURLING ROOM DISTURENCE SEE . 1 1 - 385 3 - 405 - 408.065 3, 1 - 4 - 5 DEGRANDING DISTURENCE

NOVELTIES FOR 1915

If you did not receive our 1915 price list write us

Elmsford Nurseries-Scott Bros., Elmsford, N. Y.

rgeregie siche until 13 ...ac.land, estemblighete Geregie

### THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES NURSERIES.

There you will find all kinds and you can take your pick from the best that is grown. Maximum Quality at Minimum Prices. Write W. R. Clucas Marager

THE PALISADES NURSERIES, INC., SPARKILL, N. Y.

### ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N J.

# A.N PIERSON INC. CROMWELL CARDENS CROMWELL CONN

OUR card in this column will keep your business before readers from month to month. The rates are reasonable—the results cannot be measured.

### HARRY BALDWIN

Samula, a ground manufacture and a contraction of a supplication of the contraction of th

Manufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS MAMARONECK, N. Y.



### Here's the Improved

### Dodson Sparrow Trap

Catches sparrows automatically—has a double funnel trap on left end, a drop trap on right end. There is no other trap like this. Help in the good work of banishing English Sparrows these quarrelsome pests drive Song Brids away from us. Put out a Dolson Trap - Price, \$6.00, L. o. b. Chicago

Free Booklet—Tells how to attract native birds. Describes the famous Dodson Bird Houses—20 styles. If you want song birds get genuine Dodson Bird Houses.

Nature Neighbors a Library of fascinating books chiefly about Birds, written by authorities and marvelously illustrated in colors Write for free illustrated folder.

JOSEPH H. DODSON, 732 Security Bldg., Chicago, Ill.

distance of the control of the contr

### Tree Owners and Tree Lovers

Will find much to interest and instruct in the

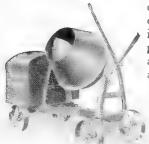
# NEW ILLUSTRATED MAGAZINE

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage. Published quarterly by

THE FROST & BARTLETT COMPANY 26 Cortlandt St. NEW YORK (Suite 212)

### MIX CONCRETE



correctly only with a concrete mixer. Hand mixing is expensive and produces poor concrete. We have all sizes of mixers at prices as low as

**\$49.**50

For Our Hand Power

JAEGER LITTLE MIXER

Write today; catalogue and information cheerfully given THE JAEGER MACHINE CO., Rich St., Columbus, O.

# SUMMER TRAVEL

The transformation of the first of the state 
Tours and Tickets by all routes, rail or steamer, with or without hotels. Five to Fifteen Day Tours to resorts of New York State, St. Lawrence, Canadian Maritime Provinces, etc. Tours to California Expositions.

WRITE FOR PROGRAM DESIRED

### THOS. COOK & SON

TOURISTS' AGENTS

245 Broadway

New York

# **Bon Arbor Chemical Co.**

PATERSON, N. J.

Manufacturers of

BON ARBOR No. 1. Soluble Plant Life. A most wonderful and invigorating food for all plants, indoor and outdoor.

BON ARBOR No. 2. Best dressing for your lawns.

RADIX WORM ERADICATOR. Instantly removes worms from your Tennis Courts, Putting greens, etc.

ANT DESTROYER. Will remove all ants outside or indoors in a week's time. Be sure and try it.

NATURAL HUMUS. Is the best for making new lawns, gardens, etc.

Write for descripive catalogue and prices

1 10 (1), 1 1 1000 ... 1 1000

By an Unusual Arrangement with the Publishers We Offer to Our Readers on Special Easy Terms

# BAILEY'S New Standard Cyclopedia of Horticulture

Everything Newly Written—Up to Date— Beautifully Illustrated

THE new Standard Cyclopedia of Horticulture has been freshly written in the light of the most recent research and experience. It is not merely an ordinary revision or corrected edition of the old Cyclopedia, but it is a new work from start to finish with enlarged boundaries geographically and practically; it supersedes and displaces all previous editions or reprints of every kind whatsoever.

It is the fullest, the newest, the most authoritative of all works of its kind and constitutes the most conscientious attempt that has ever been made to compress the whole story of our horticultural thought, learning and achievement into one set of books.

Write for 16 Page Prospectus Containing Complete Description and our offer to Subscription Department.

### THE CHRONICLE PRESS, Inc.

Publishers of Gardeners' Chronicle of America 286 Fifth Ave., New York

غراما بالشرية المراهب مناهب و الله و مهاد

Science is teaching that it is as essential to

# PROTECT PLANT LIFE

from insect pests and the various fungi with which it is afflicted as it is to properly fertilize it. The importance of this to successful cultivation is becoming more and more evident as more is learned about the growth and habits of vegetation.



a concentrated liquid spraying real relationarity soluble in mater is used at carious strengths, according to divicences in cans.

Aphine is equally effective in the house and garden; free from disagreeable odors of most insecticides, and practical for

professional and amateur growers.

It is effective against green, black and white fly, red spider, thrips, mealy bug, soft scale, rose cabbage and currant slugs, and other soft bodied and sap-sucking insects. It can be applied to the tenderest foliage, flowers, fruits and vegetables.

Aphine will keep your plants (sweet pea vines, rose bushes,

etc., etc.) in the garden free from insects.

Aphine is used by prominent growers as a wash for decorative stock.

Gill, 25c.; half pint, 40c.; pint, 65c.; quart, \$1.00; gallon, \$2.50.

# SCALINE

is an oil and sulphur composition—three in one, a scalicide, insecticide, and fungicide combined, composed of a high grade of petroleum, and the properties of the well known

fungicide, Fungine. It is a most efficient winter spraying material for San Jose and other scale.

Use one part Scaline to twenty parts years

As a summer spray for hardy trees, shrubs and plants it is an effective remedy against green, black and white fly, red spider, thrips, woolly aphis, cottony maple scale, tulip scale, mealy bug, and all soft scale.

Use one part Scaline to forty to fifty parts water.

The sulphur contained in Scaline makes it an excellent preventive against various fungi at all

seasons of the year.

Scaline will rid your evergreens and shrubs of the red spider pest, which has done so much

havoc to them recently.

It is summed spreading. So line is recognized as a coefficient with more continuous nor of literature emulsion; more effective and more economical. It mixes readily with water, contains no sediment, and can be applied with the finest spray nozzle.

Quart, 75c.; gallon, \$1.50; 10 gallons, \$10.00.

# FUNGINE

is a concentrated sulphur composition, used as a spraying material, readily soluble in water, containing no sediment, and, unlike Bordeaux mixture, and lime and sulphur, does

not stain the foliage, but cleanses it.

It is an intallible remedy for mildew, rust and wilt, affecting flowers, fruits and vegetables, and is used with much success by leading growers on young stock as a preventive against various blights; also against bench fungi.

One gallon makes 50 gallons spraying material.

Half pint, 30c.; pint, 50c.; quart, 75c.; gallon, \$2.00.

# VERMINE

is a soil sterilizer and vermicide. Destroys cut, wire, cel and grub worms, maggots, root lice and ants. Used one part to four hundred parts water, thoroughly soaking the

ground, it will protect your plants and lawns against ravages under the soil.

Gill, 25c.; half pint, 40c.; pints, 65c.; quart. \$1.00; gallon, \$3.00.

These products have the endorsement of leading commercial and private growers, and are generally recognized as standard remedies for the control of the insects and plant diseases for which they are recommended.

For sale by the leading seedsmen throughout the country. If not obtainable in your community, send us your order direct and we will have it shipped to you from our nearest agency.

# Aphine Manufacturing Co. Agricultural Chemicals

GEO A BURNISTON

MADISON, NEW JERSEY

M. C. EBEL Treasurer

# lum ona Double-Disc

Fit your machine

Columbia Graphophone Company

Box H-494, Woolworth Bldg., New York

Toronto: 363-365 Sorauren Ave.

# CARDIN 38 CHRO

OF AMELIA

Floring A.



Name of the second



### Find Out From Us What A Greenhouse Costs

EVERY of a street of the total projective as former than the state and the greathers of the former in that the requirements. He does not to the project of the country of t

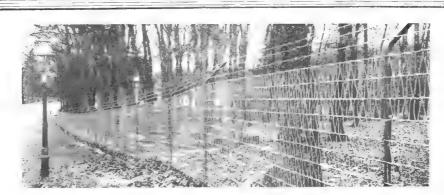
There seems to exist in the minds of a good many, the impression that greenhouses are a millionaire's luxury. Unquestion in the control of the transfer of the control of t

New York, 42d St. Bldg. Chicago, Rookery Bldg. Boston, Tremont Bldg. Rochester, Granite Bldg. Philadelphia. Cleveland,
Franklin Bank Bldg. Swetland Bldg.
Montreal—Transportation Bldg.
Terento—Reyal Bank Bldg. Iord & Burnham Co.

Irvington, N. Y.

Des Plaines, Ill.

St. Catharines.



# This Fence Can't Be Climbed

KEEPS mischievous boys out. Prevents deliberate stealing. Fully protects out of way parts of your property.

Wire so close mesh keeps even small chickens and animals either

Enduring. Moderate in cost.

Send for catalogue and prices

2430 YANDES ST.

INTERPRISE IRON WORKS

INDIANAPOLIS, IND.

JOHN SCHEEPERS & CO., Inc. 2 Stone St. Flowerbulb Specialists

# Highest Quality Exhibition Bulbs RARE AND NEW VARIETIES

American Representatives for:

R. WALLACE & CO. Colchester

England

Greatest Specialists in: Iris, Lilies, Montbrettas, Eremurus, Rare, and other High Ciass Bulbs BLACKMORE & LANGDON England

Greatest Specialists in:

Single, Double, Exhibition, and other Tuberous Begonias, Hanging Basket Begonias.

600 Awards at Print gal Herticultural Shows.

Forty Gold Modals and many other High Awards at Principal Shows.

If you want to show your principal what your skill can produce with highest class bulbs, or if you are desirous of winning the highest honors at important flower shows, let us take care of your orders. We have prize-winning goods ready for delivery.

Catalogues are ready for distribution. Please state which catalogue you want.

# FOR FALL PLANTING



We offer a splendid assortment of herbaceous plants just right for planting now, Phlox, Paeonies, Delphiniums, etc., in the best varieties for the hardy border; also rock plants that are hardy and desirable for the Alpine garden or rockery.

Strong three year, budded plants shipped from pots for immediate planting. We have a big list of the best varieties.

Specimen Evergreens, Shrubs, and nursery stock.

Have you received a copy of our fall catalogue? If not, send us a card and receive one.

A. N. PIERSON, Inc., Cromwell Gardens, Cromwell, Conn.

# **BOBBINK & ATKINS**

"World's Choicest Nursery and Greenhouse Products'

### FOR FALL PLANTING

### HOMEGROWN ROSES

Make sure of good results and plant our ROSES, budded and grown on our Nursers. We grow every Rose of merit

### SHADE TREES AND FLOWERING SHRUBS

OUR Trees are frequently transplanted and individually tended, and have space to form well-shaped healthy tops.

### BULBS AND ROOTS

You will find the cream of quality from every

### FRUIT TREES AND BUSHES

By sending for our ILLUSTRATED GENERAL CATA-LOG No. 45 and our Autumn Bulb Catalog you can get an idea how vast and complete are our collections of all trees and plants.

"We Plan and Plant Grounds and Gardens Everywhere"

PLANTERS NURSERYMEN, FLORISTS AND

RUTHERFORD. NEW JERSEY COLUMN COLOR COLOR, COLOR COLOR CONTROL COLOR CO

# Forcing Bulbs

White Roman Hyacinths Paper White Narcissus Trumpet Major Narcissus Campernelle Jonquils Freesia Refracta Alba Lilium Candidum Lilium Formosum Calla Devoniensis Oxalis Buttercup

All the above have arrived in first class condition.

SEND FOR CATALOGUE

W. E. Marshall & Co.

166 West 23d Street

New York



# Picked Bulbs to plant now

### Lilium Candidum

(Madonna Lily)

Plant bulbs now to make their leaf growth this fall and bloom next June. Ideal for sheltered spots in Plant Borders and low shrubberies—

Large Bulbs, per doz., \$1.25; 100, \$8.00 Mammoth Bulbs, per doz., \$2.00; 100, \$15.00

### Paper White Narcissus

Every gardener should pot or box these now for early flowers. No better house plant; invaluable for cut flowers. Our bulbs will bear comparison with the best in America.

Vaughan's Precocious (Extra Early)
Mammoth bulbs, per 100, \$2.50; 1000, \$20.00.
Vaughan's Grandiflora, per 100, \$2.00; 1000, \$18.00.

Vaughan's

### White Roman Hyacinths

The Best Substitute for Lily of the Valley since German pips cannot be had. 12 to 15 ctm. circum. per 100, \$4.00; 1000, \$35.00 13 to 15 ctm. circum. per 100, \$5.00; 1000, \$45.00

### Vaughan's "Purity" Freesia

The Whitest of All Freesias Mammoth Bulbs, per 100, \$3.50; 1000, \$30.00.

Write for complete fall catalogue now ready, mailed Free Everynow ready, mane ...
where
Everything described and beautifully illustrated.

Vouighoin's Seed Store HOO W RANDOLPH ST.

CEADIIHE





# Meehans' Mallow Marvels

are now brightening the finest properties everywhere Planted in groups of one hundred or more, they produce a waving sea of glorious red, pink or white flowers.

Pink at \$35 per hundred White at \$35 per hundred Red at \$50 per hundred Mixed at \$25 per hundred

### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65 Germantown, Phila



### **Bulbs** Cold Storage

FOR CHRISTMAS FORCING

Lilium	Spec.	Rubrum,	9/11	Doz. \$3.00	\$20.00
	-	i i	11/13	4.00	30.00
Lilium	Melpo	mene,	9/11	3.00	20.00
			11/13	4.00	30.00
Lilium	Long.	Giganteum,	8/9	2.00	15.00
			9/11	3.50	25.00

Lily of the Valley—Wedding Bells. Per Bundle of 25, \$1; per 100, \$3; per 1,000, \$25. Send for Autumn Bulb Catalog Now Ready

Arthur T. Boddington Company, Inc. SEEDSMEN

342 West 14th Street, New York

है। emelose emente estado e estado e estado estado estado empresa emporação emporação emporação em composição e

# barters Bulbs

KING ALFRED DAFFODIL-the regal aristocrat of the trumpet flowered Narcissi is the most notable variety ever offered to American growers.

If you have not yet received the new Carter Catalog of Bulbs which portrays King Alfred and many other distinguished varieties write for a complimentary copy at once. This handsomely illustrated Bulb Book has only a limited issue.

OUR SPECIAL OFFER—To be able to purchase King Alfred and Sir Francis Drake Narcissi at the prices noted below is an unusual opportunity which is available only for 30 days from date of this issue. King Alfred and Sir Francis Drake grow two feet high and produce enormous trumpet flowers of a rich golden

Prices-Each 40c.; per doz., \$4.00; per 100, \$28.00.

### CARTERS TESTED SEEDS, INC.

111 Chamber of Commerce Building, Boston, Mass. Toronto Montreal Seattle
Branch of James Carter & Co., London, England

# **Bulbs for Autumn Planting**



ance of beautiful flowers will be the result of planting our high grade bulbs this Autumn.

### DREER'S Autumn Catalogue

is a safe guide in making selections of the best varieties, Hyacinths, Narcissus, Crocus, Iris, Snowdrops, Scillas, etc. It also contains se-

lect lists of Old-fashioned Hardy Plants, Hardy Shrubs and Climbers; Flower, Vegetable and Farm Seeds, Grass Seeds of all kinds, including our Celebrated Lawn Grass Mixtures and a list of requisites for the Garden, Greenhouse and Farm. Write for a copy and please mention this públication.

### HENRY A. DREER

Maddistribute . Andrewis at Define at Control and Alberta and Albe

714-716 Chestnut St.

Philadelphia, Pa.

Seeds, Bulbs, Plants, Fertilizers, Sundries

# Bulbs

for

Forcing, Bedding and Naturalizing

# Grass Seed Mixtures for all situations

Register your name for all catalogues mailed in season

### BURNETT BROTHERS

SEEDSMEN

98 Chambers St. Between Broadway and Church Street New York Telephone: Barclay 6138

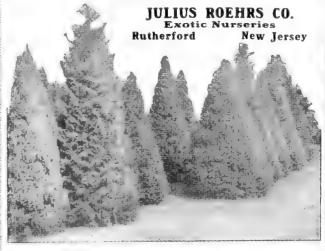
# Evergreen Trees

There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

### Trees, Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs, Greenhouse Plants and Orchids.



The second statement of the second se

# The Contents---September, 1915

	Page		Page
Advantages in Fall Planting of Evergreens .		American Association of Park Superintendents	415
By H. E. Holden	395	Park Superintendents' Convention Trip	416
The Perennial Garden By W. J. Potter	397	Recreation Work Problems of Park Boards .	
Historical Grant's Farm, St. Louis, Mo	398	By Theodore Wirth	417
Things and Thoughts of the Garden		How to Protect Our Birds	
By The Onlooker	401	By Herman <b>M</b> erkel	419
That Little Greenhouse of Mine		Preparing for 1916 Flower Shows	420
By L. W. C. Tuthill	403		420
Some Phases of Floricultural Education .			421
By Arno H. Nehrling	405		422 423
Work for the Month of October			423
By Henry Gibson	407		423
Fruit Culture in Pots By W. R. Fowles	408		424
Gladiolas Growing for Pleasure			424
By P. W. Popp	409	Directory of Garden Clubs	425
The Herbaceous Phloxes	409		426
Golden Gate Park . By John McLaren	410		426
Editorials	412		427
The Late James Allen	412	Nassau County (N. Y.) Horticultural Society North Shore (Mass.) Summer Show	427
Competitive Brotherhood			428
By Mrs. B. Hammond Tracy	412		428
National Association of Gardeners	413	New London Horticultural Society	
Among the Gardeners	414	Southampton (N. Y.) Midsummer Show .	

# STUMPP & WALTER CO.'S CATALOG

# BULBS FOR AUTUMN PLANTING

Complete List of New and Standard Varieties, Tulips, Hyacinths, Daffodils, and other Bulbs. The list comprises many of the best introductions of recent years. Many of the varieties that have won first prizes at the Flower Shows—all of the usual S. & W. Co. Quality Standard.

OTHER SEASONABLE NEEDS FOR THE FARM, GARDEN AND LAWN ARE LISTED

If we do not have the pleasure of having your name on our list, please write, asking for catalog



# GARDENERS' CHRONICLE

### OF AMERICA

THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

SEPTEMBER, 1915.

No. 9.

# Advantages of Fall Planting of Evergreens

By H. E. Holden, New York.

Many views have been expressed on the one side in favor of Spring planting, and on the other in favor of Fall planting. It can be said that by far the largest portion of planting stock, both deciduous and evergreen, has been set out in the Spring, but this is doubtless more through custom than otherwise. It is natural that Spring should bring with it a general desire to plant, more so indeed than the Fall, when most people are looking forward to the advent of Winter and a return to their city homes. .The fact remains, however, that with the approach of Autumn, practically all plant forms have reached their mature growth for the year. With the full landscape before one, it is possible to form a clearer idea, and an easier solution of the existing needs for improvement, here and there, than in the Spring, when the landscape is still generally bare and Nature is about to return to another season's growth. One has a longer season of thought and preparation in the Fall than is possible in the Spring. Often, as in the past Spring, the season advances so quickly from Winter into Summer that not only the preparation for planting, our plans, etc., but the planting itself must be hurriedly done. In the Spring, stock is going from a dormant state into a growing one, and unseasonably warm weather often occurring in the height of the planting season is, not infrequently, the cause of very serious injury to new stock, both while in transit and when received, due to the general hurry to get it planted to save it. This is, of course, in a measure more true with deciduous stock than with the evergreen species, the planting season for the latter being a little longer. Nevertheless, in the general rush to plant up to the last possible minute, entirely too much coniferous stock, as well as many of the evergreen shrub species, is planted in late May or early June, after the new growth has in many cases reached from an inch to three or four inches in length. When this is so, every possible care, such as frequent spraying, shading, etc., must be given, in order to assist this new growth to harden up, otherwise this new growth will quickly wilt and die back, generally resulting in an unsightly specimen for a long time. or more often in heavy losses. Too often such plants are set out without any extra care, and in the expectation that the plants can take care of themselves.

Here, then, with Fall planting at hand, we have an easy solution of this difficulty. In a short Spring, when stock has well started before we have been able to complete our planting or our planting plans, why not put off further planting a few months, say, until August and September for evergreens, and October and November

for deciduous stock, in the meantime completing our plans. By August all of the evergreen species have finished their growth, and all new growth is sufficiently hardened. The ground is in its full warmth during these two months, and even in October. These are the three months, the two former preferably, when evergreen planting can be arranged with the absolute certainty that the results to be obtained will be at least at satisfactory as in Spring planting, and the chances are that many who may be somewhat averse to Fall planting will be agreeably surprised with the results of their labors at this season.

There is one, and only one possible adverse condition to be considered as against Fall planting of evergreens. It of course sometimes occurs that we suffer a severe Spring drought, but we are perhaps more subject to such drought during the very months when Fall planting of evergreens can be done to best advantage. Where a severe drought should occur over an extended period it would be pure folly for anyone to suggest the advisability of planting under such circumstances, unless one is provided with the necessary facilities to provide readily the necessary moisture, which natural conditions at the time may lack. Where moisture as a result of favorable weather conditions is ample during these months, it can be safely said that this period is ideal for planting evergreens. Plants set out during this period will take root quickly and become well established before the severe Winter weather begins. The general warmth of the ground, if provided with sufficient moisture, added to the fact that an evergreen is then in its most healthy and vigorous condition after completing its season's growth, creates then a condition perhaps more conducive to safety in the transplanting of evergreens than any other period of the year. It might be added that the writer has seen highly satisfactory plantings of evergreen types set out up to the end of November, and in several cases even in December, with comparatively few losses.

While it is to be regretted that a more general use of the many and excellent species of Coniferous Evergreens and Evergreen Shrubs has in many cases seemingly been openly discouraged, and in others receiving only passive encouragement, it can hardly be said that this apparent disinterestedness is through any lack of appreciation of the many merits and advantages of these species for general ornamentation.

The question has often been asked, however, by those directly and otherwise interested in such development: how the heavy and in many cases excessive losses often

suffered in evergreen planting can be avoided, or at least minimized?

In comparison with deciduous planting somewhat heavier losses are to be expected, but such losses need not be and should not be excessive, or indeed little heavier than is usual among the general types of deciduous trees and shrubs. In the selection of suitable evergreens, much importance should be placed in the types which can be successfully grown under such soil and climatic conditions as we find them. In this connection no specific rule can be followed, and general observation and more or less experimentation are necessary when these conditions are so diversified as are those which American planters must face. Insofar as the soil conditions are concerned it can be said briefly that as a general practice a fairly rich and well drained loam soil is necessary, except in the case of some few varieties capable of withstanding less advantageous conditions. The matter of types, and a means of correcting adverse local soil conditions will be taken up

Further in the matter of selection it should be seriously considered when arranging for a possible source of supply for the evergreens desired; under what conditions have they been grown and how? It is essential that the root body of an evergreen be properly prepared for the ordeal of final transplanting, more so indeed than the need of producing a properly balanced and well furnished specimen above ground when the chances of its success or failure to live after planting is concerned.

Frequently transplanting in the producing nursery, root pruning, and other scientific treatment are the means to this end practiced by reliable professional nurserymen. With this the ultimate planter is little concerned; the confidence and certainty that it has been properly cared and provided for is, however, his concern and a vital one. It is possible to produce by neglecting entirely the necessary care referred to, a specimen which in general appearance and structure above ground will quite equal one which has been produced under the highest cultural methods as to root production beneath. The former, however, from the viewpoint of ultimate results is practically worthless. Thus the importance of selecting evergreens from none but reliable sources.

Directly bearing and of greater interest to those contemplating a more extensive planting of the various evergreen forms and species is, of course, the necessary care in preparation and planting, and their after treatment and culture. Immediately after the stock is received, whether in cases or loose in bulk, the plants should be unpacked, except in heavy, dry, windy weather, when this should be deferred until a more opportune time. It should, however, be given the earliest attention. If a large lot, or if for other reasons they cannot be promptly planted, they should be placed together in a somewhat cool and shady situation and the roots protected with a covering of moist soil from where they can be taken as needed. A strong, dry wind to which the roots may be exposed for any length of time will cause irreparable injury and planting under such weather conditions should be avoided wherever possible.

In making the necessary excavation for planting one should be governed as to the depth and breadth of the excavation more or less by the size of the root ball of the individual specimen, and in this connection it is well to mention the importance of having all of the plants dug at the nurseries from where the plants are purchased with a good ball of earth, and this securely protected with a covering of burlap. The excavation for planting should be made at least three or four times larger than the root ball and about a foot deeper. In the event of the soil

being of a very poor quality, such as a heavy binding clay soil or a light sand or gravel soil, etc., it is advisable, in fact necessary, to excavate as above and dispense with it entirely, replacing it with a good loam, which is usually readily available. In cases where such soil cannot be readily provided a liberal mixture with the existing soil of a good well *rotted* manure, preferably cow manure, will serve this purpose, but hardly as well. It is well in such cases to so prepare the soil if for spring planting in the previous fall or for fall planting during the spring to enable the soil and manure to rot down well before planting. In soil having a heavy clay texture an addition of sand will help lighten it.

If the soil is already of sufficiently good quality the use of manure or artificial fertilizer is not necessary and is not to be recommended. In affording a liberal excavation the soil broken up as smooth and fine as possible thus returned and much in excess of what the plant would otherwise immediately require will make available practically a highly cultivated area for the plant's future growth, and giving a deep, mellow bed in which to extend their new roots. This simple and important operation is frequently ignored and in such cases result in very heavy losses. A small shallow excavation will result in starving

or drying out the plant in short order.

In placing or setting the plant the mistake is sometimes made of planting too deep or too shallow. The correct depth to plant can best be judged by the soil mark indicating where dug at the nursery or its planted level then. The top of the earth ball should be placed slightly below the ground level. After the plant is set in the proper and desired position, the soil is then filled in and well firmed or packed. The matter of firming the soil well is another very important feature. The soil to be returned before the plant is set to create the proper planting level should also be well firmed, although not necessarily packed. Where the soil may be somewhat dry, it is advisable before entirely filling in to pour in a liberal amount of water, and allow this to settle before filling in the rest of the soil. Some planters make use of this operation under all conditions, as it not only helps to pack the soil, but also renders necessary moisture which is retained for some time after planting. When the entire planting operation is completed, it is well to form a shallow basin of the soil around the tree where rains will accumulate, and be taken up slowly by the ground underneath. A covering or mulching of well rotted manure or other matter will aid in conserving the moisture, and prevent the soil from baking or crusting. Where very dry weather is encountered for any considerable period after planting a good spraying or syringing of water applied to all the tops and foliage each evening during the drought should be done until a good rain makes its appearance, or the plants show signs of coming into new growth. In spring planting the critical period seems to be up to about July 1, after which if the plants are showing new growth or are in good, healthy color they may be considered on a fair road to success

In conclusion it can be safely said that there are no unsurmountable difficulties in the way of evergreen planting. They should and will respond readily in nine cases out of ten to ordinary care and treatment, which in detail the writer has endeavored to explain simply and as far as possible without the use of technical terms. Common sense and a little necessary care will most assuredly bring its reward.

[In the October number the author will present an article on "The Advantages of Evergreen Plantings and Desirable Types."—Editor.]

(To be continued.)

# The Perennial Garden

The most beautifully wrought bedding plant scheme cannot compare with a well-designed perennial garden, with its daily surprises and new faces to welcome us. One week it is a riot of color and the next something different. It presents an ever-changing succession, commencing before the winter snows have melted, until Jack Frost calls a halt in the fall. This is one reason why we should grow more of this class of plants. Another reason is that they fill the bill in every size of a garden, from the capacity of a few dozen, for the cottage, to the broad acres of the millionaires.

The preparation of the soil for a planting of perennials should be most thorough in every detail, if we expect results that shall excell. The work should be of a permanent character. The plan that I have gen-

erally adopted I find works well.

Prepare the beds in the fall by trenching or digging two spades deep. This breaks up the sub-soil. It should be dug and left in a rough condition, at the same time incorporating plenty of good rotten manure, or half-rotted leaves, or both, if the soil is very heavy. This makes the best medium for growing perennials. Give a good application of charcoal, peat moss, fibre or better still, plenty of good, tough sod. These materials will act as mechanical agents to the soil, as well as give fertility, and at the same time will tend to increase its effectiveness as a drouth resister, and a storehouse for plant food for many years.

Deep cultivation is very essential as many of our best perennials are deep-rooting; for example, the Leguminose, Malvacæ, Campanulas, and many others. Nothing suits them better than to get down to the cool reservoirs of moisture and air spaces during the parching months of July and August. The extra trouble of deep cultivation will be amply repaid in the extra quantity and quality of the flowers. In addition they will require less attention as to watering, etc., especially if we have to depend on the rainfall. Trenching not only opens up the soil and allows freedom of root action, but also drains the soil in winter, and renders it moist in summer. The action on the pores of the soil is similar to the action of warm air in contact with a cooler surface or body.

If the ground is of a very sandy nature it is better to neutralize it by the action of cow manure (if procurable). Heavy clay loam with the sod left on is preferable. Wood ashes or lime applied at the time of preparation is also good, as it has a binding effect on the soil, and being very "leachy," heavy mulching at all times is necessary for the best success. In summer it prevents too rapid evaporation and provides a constant stimulus. It acts also as a protection in

I am rather in favor of nitrogenous manures for perennials, especially in the growing of the heavier varieties, although it is necessary to give a liberal dressing of bone meal or granulated bone annually, as leguminous and woody plants depend on the lime salts and phosphoric acid contained therein. On the other hand, there are some plants that do not like lime, e. g., the Foxglove, but they are few in number.

There are two general methods in the planting of a perennial garden. The first is by arrangement of colors for certain sections or divisions. Of course in each case the aim is to have continuity of bloom for the entire season, so arrange the height, natural position, etc. This method might suit those who are partial to

\*Extract from a paper read at the recent annual convention of The Canadian Horticultural Association by W. J. Potter, Parks Department, Toronto, Ont.

certain colors and shades and is easily accomplished. Color planting is more suitable for large gardens, where the eye rests on the whole, or greater part of the scheme. It also includes the choice and use of two colors or combinations, such as pink and blue (light), cream and purple, golden yellow and deep blue, or orange and medium blue; or a gradual blending down from an intense color, using several intermediate shades. The yellow and orange shades always look well and if separated in good generous blocks, cannot help but be effective. Blocks of white flowers or green ornamental foliage will act as a foil where it is necessary to use strong colors in heavy masses, reds and scarlets for example, that is if both meet the eye at the same time. The blue delphiniums, white and pink hollyhocks afford an example of good tones, but keep the reds and maroons away. Gypsophila and purple delphinium form an æsthetic combination. Place Golden Coreopsis against heavy foliage and deep shadows. Plant Foxgloves among an underground of dwarfer material or among evergreens in groups. The composite flowers offer many delightful combinations. One cannot err in their use as the colors, for the most part, can be called relative or harmonious. Examples include Heliopsis and Callimeris incisa, Stokesia and Shasta daisy. These can be used also with Golden Authemis. Rudbeckia purpurea and Rudbeckia fulgida or subtomentosa harmonize, and so on "ad infinitum."

Collections of phlox show off to much advantage if separated as to color, the scarlets from the magentas and the pinks from the purples. Use the white forms

between.

The second method of planting may appeal to those who want to form collections without regard to color arrangements. If so, use plenty of green foliage as a foil and background. This method is the planting of each genera or family in separate masses or irregular bays in conformity with the size and shape of that portion of the bed to be planted. When following this method, make a sketch or drawing to scale and have the framework laid out first with the space allotted to each group. Then plant evergreen shrubs at vantage points. These not only act as foils to certain colors and forms, but also afford shelter in winter from cutting winds and in summer from hot sun for shade

There are many genera which will thus make a continuous show of bloom by judicious placing and the use of the proportionate number. Take veronica, for example. The first one blooms in the spring, and so on till fall, without a blank. Phlox are the same, starting with P. ovata, and followed by Arendsi, suffruticosa, and decussata, giving an unending succession till October. Rudbeckia, helianthus, spiraea, aconitum, campanula, helenium, inula, pentstemon, lychnis, lilium, aquilegia, gypsophila and many other families not including continuous bloomers, can be used in this way. If by chance there happens to be any blank spaces, any of the continuous bloomers in the list fills the bill.

Propagation may be done in a number of ways. The most generally adopted method is by seeds. These should be sown early enough to form good strong plants by October so as to enable them to stand the winter. About June will usually suffice for many. I prefer sowing most everything in the spring, as it takes a long time for many to form good crowns, and it is better to err on the side of size than lose your stock through the winter. Phlox are better sown in

(Continued on page 400)

# Historical Grant's Farm, St. Louis, Mo.

One of the oldest and most historic places in the vicinity of the city of St. Louis, Mo., is the old Grant's Farm. It is located about twelve miles from the city, on the Gravois Road. Its owners, from the first, were people of distinction, but its chief historical interest centers in the fact that it was the property of General (later President) Ulysses S. Grant during the season of his greatest prosperity. Mrs. Grant, nee Julia Dent, was born and reared on this place. It was here also where most of his children were born. Grant's Farm was originally settled by Captain John Long in 1807. He was a revolutionary hero, and fought under General Lafavette. From the Longs the farm passed into the hands of Theodore Hunt, and from Mr. Hunt to Frederic Dent, Mrs. Grant's father, and then to General Grant who, shortly before his death, sold it to Luther H. Conn. Twelve years ago August A. Busch, the present owner, acquired the property, which is now his home.

General Grant lived on this farm from the time of his

by the Eusch family for week-end stays and for parties. During these years the place was particularly noted for its simplicity. The natural features were preserved, as far as possible, the growth of the native plants encouraged and the number of species extended, until now almost all plants, hardy in this locality, are to be found there, growing in natural situations and surroundings, Walks were made through the wildernesses, and to overcome obstructions in the way, as well as to add interest to the scenes, rustic structures of various kinds were built, carefully observing their practical use as well as their proper fitting into their surroundings.

These structures were built of Arbor vitae and white birch, with floors of oak. To prevent their early decay by rot, none of these structures were permitted to touch the soil, but were anchored to concrete piers which projected a few inches above the surface of the soil. After eight years these structures are still in splendid condition.



"GRANT'S LOG CABIN," BUILT AND FORMERLY OCCUPIED BY PRESIDENT U. S. GRANT

marriage to Miss Dent until shortly before the Civil War. About 1854 he built the now famous "Grant's Log Cabin," which is still carefully preserved on the farm. The Grant's Farm contains 250 acres, the greatest part of which is utilized as a park.

Previous to the purchase of the property by Mr. Busch it was utilized for pasture, and at the time was a practically unspoilt wilderness where most of the plants native to this region abounded. With the exception of a meadow of about 15 acres, through which flows the Gravois Creek, the property is very irregular in contour and largely wooded. The principal predominating species of trees are: oaks, hickory, sycamore, western sugar maple, ash, black walnut, elm, hackberry, Ohio buck-eye, red-bud, flowering dogwood, crab apple, wild black cherry, hawthorn, etc.

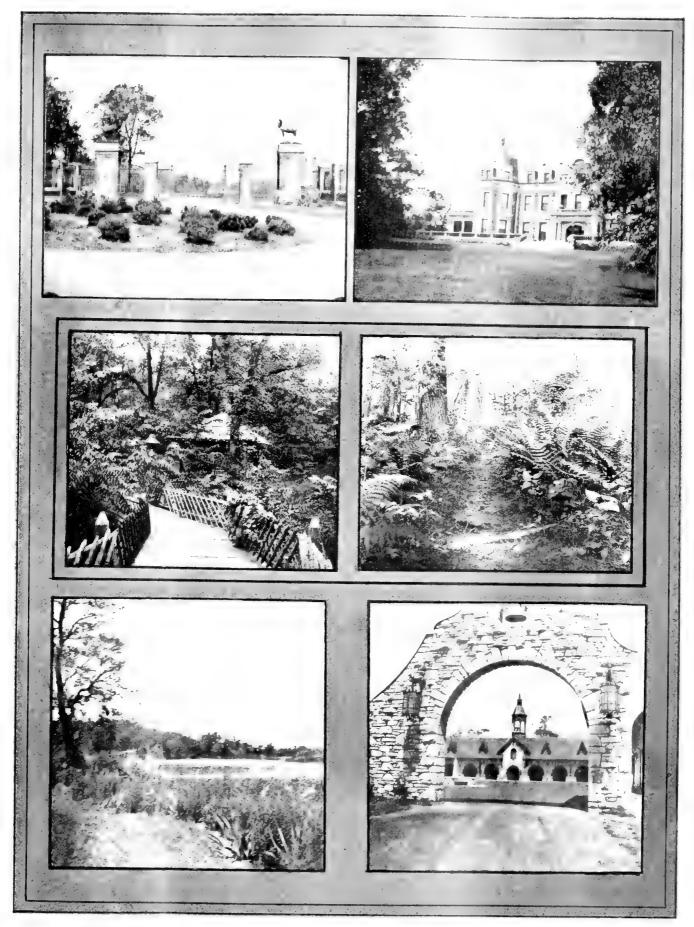
The first development of the property was very simple and consisted of the building of a rustic cottage, barns, artesian wells for water supply, and essential drives and paths. For a number of years the farm was utilized

Five years ago Mr. Busch decided to make Grant's Farm his permanent home, and this meant an entire change of the general lay-out of the place, from a temporary retreat to a gentleman's country home, and in doing this the aim has been to preserve the natural charm of the place and harmonize this with the architectural structures essential for the comfort and convenience of the owner and his family.

The residence is of classic architecture, and is located on an eminence, surrounded by woods. At the entrance front the native wilderness almost touches the balustrade of the building. The garden front consists of closelymown lawn, which forms long open vistas into the distance.

Along the borders of the lawn and along the main driveway are large, irregular masses of introduced hardy plants, intermingling with the native woods in the back-

On entering the main gate, which is constructed to harmonize with the residence, a long vista of meadow,



MAIN GAIFWAY O GRANTS LARD MONG THE WARK THEOLOGICITH WHITER'T VIEW OF LARL NEAR MAIN GALL

TS10(NCL OF MIGUST A, BUSCH AUTHA OF NATIVE FERNS, 17 (RANGE TO THE PAGERNIO)

bordered with plantations, is brought into view. This is followed by an extensive view of a five-acre lake, artificialy made, but, through irregular outlines and plantations, appearing like a natural sheet of water. Now as the driveway curves we have a series of waterviews in rapid succession on the one side, with steep wooded hills on the other.

As we follow the road we get a glimpse of the residence, in the distance, followed by a long, beautiful vista through a valley, in which is located a series of lagoons.

The roadway is now bordered with large trees and shrubs on both sides, with occasional glimpses of the lake, below us, to the right, and in a few moments the entrance front of the residence is reached.

This roadway continues to the service buildings and utility grounds, which are located about 1,000 feet from the residence, but hidden from there by woods and plantations, and from there leads through the woods to the service entrance of the farm.

To see some of the more interesting features of the farm, we will follow one of the walks, mentioned above, entering from the entrance front of the residence; we are at once in the midst of nature. Following this walk we come down a series of steps to the boat-house at the lake, then, along a little further, we have on one side wooded hills and on the other a series of water vistas along a stream, with occasional long vistas into the distance. After crossing several bridges, the walk leads, first, through dense woods, then on to a hillside meadow, with a series of splendid long distance vistas of hills and valleys. We are now approaching the nursery, orchard, vegetable garden, cut-flower garden and poultry yards, in succession, then to the "Bauernhof" group of service buildings.

This is one of the most unique groups of buildings of its kind in this country, in the form of a square,  $125 \times 210$  feet, enclosing a yard with a fountain in its center. This group contains the following departments: Apartments for the farm manager, engineer, houseman, dairymen and hostlers. A beautifully arranged clubroom, garage, dairy, stables for cows and horses, harness rooms and coach room.

Leaving the "Bauernhof" we enter the main lawns, where we get several excellent glimpses of the residence.

Some distance from the residence we cross a long rustic bridge over a wooded ravine, which leads into the herbaceous garden with wooded hills on one side and a series of small lakes on the other. From this walk we get one of the best views of the residence.

After crossing a small bridge, we enter into a ravine, through which flows a small stream, originating from a spring, located at the end of this small valley. A narrow walk leads through this valley, and along this walk and on the sides of the hills are to be found, growing under natural conditions, some 30 species of native ferns. Among the ferns are planted: native orchids, trilliums, hepaticas and other interesting plants of the dense woods.

The above description but faintly pictures the place, which must be seen to be appreciated. It is unconventional in design; it is a paradise for our native birds, which are protected and encouraged, and interesting to the student of our native flora as well as to those interested in hardy exotic plants. It is not as yet fully developed, and it will take years of time until recent developments reach mature effect.

L. P. Jensen, already well known among the GARDEN-ERS' CHRONICLE readers as an interesting contributor to its columns and an enthusiast on everything that denotes progress in ornamental horticulture, has the supervision of this beautiful estate, together with the other properties of the Busch family in and near St. Louis.

#### THE PERENNIAL GARDEN.

(Continued from page 397)

the fall as soon as ripe. This is true also of a few other hard seeds, as many will not keep, such as aquilegia, myosotis and primula. These must be sown as soon as possible. This method applies only to stocks which come true from seed or with which there is no regard for mixture. Any choice varieties, such as phlox, delphinium, guillardia, etc., are better raised from cuttings or divisions.

Cuttings are made early in the spring. A frame or greenhouse is a necessary adjunct for the purpose. By wintering such stocks inside a cold house, they can be raised wholesale, and indeed many will bloom the first season. These cuttings should be taken as short as possible on the side growths or when first starting to grow. Others can be multiplied from the roots, as having running fleshy roots they can be cut up in small pieces, for example, gaillardia, dicentra, lythrum, paeony, etc.

Many perennials can be increased by a system of layers without much trouble, including the dwarfer cushion plants, such as arabis, campanulla, carpathica, dianthus and others. All that it is necessary to do is to cover the plants with clean sand or sandy soil so as to form a mound, but not so thick as to bury the plant. Merely fill up the intervals between the leaves and stems. Some plants are better propagated by earthing up the stems in a similar way; for example, tree paeonies, and some others of a semi-shrubby nature.

The majority of herbaceous perennials are easily increased in smaller quantities by simple division of the roots. Those which have a heavy mass of fibrous roots can be increased in the fall. Indeed, this method of dividing the roots should be carried out every few years, as the quality is better. If this is neglected, the clumps get hollow and woody in many cases, and are liable to run out. These include pyrethrums, delphiniums, phlox, pentstemon, platycodon, aquilegia, aster and a host of others. A constant keeping up of the utmost vigor of your plants is essential both for quality and because they are then less liable to suffer from insect attacks.

It is not the intensity of our cold winters that ruins many plants, but the dry, strong winds in early spring, as well as the fact that water remains on the crowns and forms ice, thus suffocating them. To avoid much of this trouble, see that your border is well drained and encourage as much of nature's covering—snow—as possible. To this end do not clean the border off too clean and bare in the fall; in fact, no more than is necessary. The more material that is left on in the way of a rough coating of leaves, etc., the more snow is liable to find a lodgment. In the case of evergreen plants, I find that pieces of hemlock or spruce branches placed around them helps wonderfully. Do not cover these evergreen plants with a heavy mulch, as it will do more harm than good. They need air at all times.

#### AMERICAN SWEET PEA SOCIETY.

A committee appointed by President Gray, to pass upon the Sweet Peas grown in Newport on account of C. C. Morse & Co., California, have awarded certificates to the following varieties: Jessie Cuthbertson, New Meriam Beaver, Duplex W. T. Hutchins.

(Signed) ULLIAM MACKAY
CHRISTIAN M. BOGHOLT

## Things and Thoughts of the Garden

By The Onlooker

When one considers the vast amount of distinct, handsome plants that grow wild in the meadows, lanes, glades, copses, hills and uplands, as well as in the marshes and by the seashores of our land, many of which are in the height of their beauty at the present time, it does seem remarkable that hardy flower gardening is, comparatively speaking, so little developed in our gardens. It is by no means neglected; not for a moment is that suggested; but the question might well be asked whether all is done that could, might and ought to be. Lately a good deal of attention has been directed to alpine or rock gardening, and signs are not wanting that there is to be a return to the former keener interest in this feature of outdoor horticulture.

I have to confess that my surmise as to the former higher regard for hardy plants is based not so much on personal experience or study of the history of the subject as from the former greater efforts the trade made to advertise hardy stock. Look back fifteen or sixteen years and see the full page ads. that such a firm as Dreers had at that time. Or was this merely pioneer work of theirs? Lists of one hundred and fifty different kinds of hardy perennials were offered, and as the advertising was well continued it would appear that it met with support. Yet if such heavy advertising is not the rule now, it may be that it is more widely diffused. More firms are now in the business and the tendency has been and is to specialize.

Reverting for a moment to the native hardy plants, have we fully appreciated the merit and diversity of them? Take the following list as merely representative of a much longer catalog that could be written:-the Asters or Michaelmas Daisies, the Goldenrods, of which there are some forty species, the superb Swamp Lily, the stately perennial Phloxes, as well as the dwarf ones that bloom in the Spring; the pretty Erigerons, of which there are several natives of this country that are much prized in the gardens of France, Germany, England, and other European countries. At the present season of the year the gardeners across the Atlantic think our Arrowhead (Sagittaria variabilis) one of the gems of their watergardens, along with another American plant, the Pickerel-weed, Pontaderia cordata. In passing, I might ask if anything more lovely could be imagined than a vase of the Sagittaria, above-mentioned, arranged with the Maidenhair-like foliage of the Tall Meadow Rue (Thalictrum polygonum)? Others of our native plants that are prized abroad if not so much with us, are the Port Wine Plant or Pokeweed (Phytolacca decandra); the Evening Primrose (Œnothera biennis); the Jewelweed (Impatiens fulva); the Shrubby Cinquefoil (Potentilla fruiticosa); together with Eupatorium purpureum, Asclepias tuberosa, Malva Moschuetos, Verbena hastata, Rudbeckia hirta, Veratrum, Tradescantia, and many another.

With all these excellent subjects we have also an admirable opportunity for wild gardening. The owners of some estates do practice the sowing of the choicer native plants and shrubs. I remember seeing half a mile or more of railroad embankment covered with Spanish Broom, and the sowing had been made, curiously enough, by the Mr. Robinson already mentioned in these notes. He was in the habit of filling

his coat pockets with the seeds of this shrub and as he walked along, used to scatter it. In this way places that before were bare and uninviting were converted into places good to look at. The railroad company was not averse to having its property improved either, since it cost them nothing. The Spanish Broom, of course, is not hardy with us except down South, but what about Gorse or Whin, Common Barberry, Pepper Bush, Rhododendron maximum, Hop, Clematis, etc., together with colonies of the more vigorous perennials?

The main requirements in the making of a successful herbaceous border are a good soil, deep and holding if possible; secondly, enrichment in the form of yard manure or fertile leafmold; thirdly, young, clean stock, either freshly raised or old stock divided; lastly, close planting. Some folks will very likely raise objections to this latter piece of advice, but the reasons are these: that the plants not only look better in the mass but support themselves to a large extent in the Summer and, most important of all, they afford shade and protection to each others' roots in the hot weather.

In regard to the system of grouping or planting, opinions differ about as much as it is possible to. Besides the mixed border, which is the most common, there is the border that is planned for color effect, such as the blue, the white, the grey, the orange, and so on. While these are exceedingly interesting and exhibit knowledge of hardy plants and skill in how to employ them, still, for everyday use and the widest utility, the old-fashioned mixed collection will generally be voted best. Let the plantings be in ample masses though, or to be more definite, say a three feet by three feet grouping, whether it be round or drift-like. That is a very small planting even for such things as Achillea, Dianthus, Campanula, or similar dwarf growers. Of the plants that are soon out of flower, like the Peonies, and which are apt to leave a dull patch the rest of the Summer, one good plant by itself in one place seems to me to be sufficient. It will test the skill of any gar-dener, however, to maintain a moderate display of bloom through the season, from May to October. Can it be done? Only by the exercise of the greatest forethought. Even then, so far as the writer's experience goes, it has always been necessary to supplement the permanent framework, so to speak, with a certain amount of "bedding." But this "bedding" precludes most of the plants that are associated with the parterre or formal flower garden, with its Begonias and Geraniums. Such subjects as Verbena venosa, Calceolaria amplexicaulis, Nicotianas, Polygonum orientale, and others that will arise to mind, are one and all suitable and even desirable. Certainly these must be raised, grown on to a decent size, and kept ready for use wherever wanted, which is a very easy matter indeed. No place of any pretention should be without a reserve space or garden from which to be able to draw either plant stock or cut flowers. Now is the time when we have more leisure to think out these planting problems, and with paper and pencil during the lengthening Autumn evenings, plan and prepare for better things ahead—greater triumphs yet.

Washouts are all too common—commoner than they need be if we would only channel or fix up the sides of

•

our paths and driveways. Cement is sometimes used for channeling, so also is brick and stone. Of the three the brick is the most to be commended, but its expense generally puts it out of count. Whatever is used, see to it that there are sufficient sink-holes. If greater care were taken with the sides of our roads and paths, much less damage would be discoverable so far as washouts are concerned.

\* \* \*

We are now well through the Gladiolus season. The weather has been very favorable to the growth of the bulbs (corms), and there have been some fine displays. Many amateurs have been induced, in the last year or two, to take up their cultivation with a view to the sale of the flowers in the market. The result of this has not been profitable either to them or to the bona fide commercialist. The Gladiolus is of the easiest culture, although, as in the case of most hardy or outdoor "bulbs," good treatment brings forth the highest expression of the flower. This reminds me that at the present time, when we are potting the Dutch bulb stock, we might as well take note that a piece of nice loam and spent Mushroom bed manure and a quarter part of clean sand is far better than trying to get results from old compost, even if it has been enriched with boneflour, soot, or any of the prepared fertilizers. Old Chrysanthemum soil, since it contains the decomposing roots of the 'Mums and is rich, is not a bad material to make out with. At any rate, give the bulbs something to live on.

From the market growers' point of view the returns from the Gladioli recently have been worse than disappointing: in many instances it did not pay to cut and send to the wholesale florist. The prime favorite throughout was the variety America. A close second was Mrs. Frances King. Others of the best are Mrs. Frank Pendleton, Baron Hulot, Niagara, and Badenia. I must say a good word for Burpee's Fordhook Hybrids. It is a fact that from a sowing made in February, blooms can be cut in September of the same year. This is surely quick work, and reminds one of the peaches in California which can be fruited in sixteen months from the sowing of the stone. The seed of these Hybrids is sown in a heated frame, in rich light soil, and by keeping the young stock watered through the Summer, a small percentage will flower in September or earlier, as stated. This Fordhook strain is in all the colors that one could wish, except blue. Another strain that is engaging attention is the primulinus group. These are very dainty, bearing moderate sized flowers on long stems and having prettily hooded shape. The colors are soft yellows, salmon, rose, and similar combinations. It is a pity that the hooded form is in danger of being bred out; the type ought to be kept true.

We are now in the season of the Dahlia, truly one of the great plants of the day; but indeed it has been a favorite ever since the oldest of us can remember—and before. In next month's Chronicle something may be said of the season's varieties; but meanwhile the question may be asked why the useful miniature cactus kinds are so totally neglected. Pompon cactus is another name they go by. They are particularly suited for the smaller gardens, or for the front of a border. The midget type of singles is also less seen than they might be. It is only in first-class collections that all the numerous types are found, and even the fanciers tie themselves down to cactus, Peony-flowered, decorative, pompon, and doubles, i. e., shows and fancies.

Recently the large Twentieth Century singles have also been much in vogue. All have their points of merit.

I was interested and amused at a review of Mrs. Francis King's newly published book in an English gardening paper. The reviewer was Wm. Robinson, a man of much eminence and experience, not only as a practical gardener and landscape gardener, but also as a journalist. It was in his own paper, Gardening Illustrated, that the review appeared. Mr. Robinson, whom I know personally, deserves attention, and has indeed exerted a mighty influence insofar as the hardy plants and their use in gardens is concerned. When he began to advocate the greater use of hardy garden flowers some 30 or 35 years ago, his was as a voice in the wilderness, but gradually he and his backers gained a larger following until today the hardy plant cult is the most vigorous of any in the United Kingdom. Mr. Robinson's estate is in Sussex, one of the lovely Southern counties, where he purchased a neglected place many years ago, and began by thinning out the large trees and planting young forests and woods, also greatly improving the gardens, until today the Elizabethan manor and the surrounding grounds are among the most desirable and valuable in that splendid county. He, however, has become more and more intolerant of other people's views in regard to gardening and design, and has from time to time lashed out in a realy unmerciful manner against the book producers. So much is he prejudiced or biased in regard to his own ideas that he can see no good in any other person's. His vehemence lends a spice and relish to what he writes so long as one can look at it in a detached and merely amused manner, for the looker-on always has the best position. As Mr. Robinson is now well over 70, it is unlikely that he will now become any more tolerant of the opinions of others. People, however, grow tired and heedles of the carping critic if he carps too long, or fails to add logic to his invective.

This month (September) and the early part of next month is the time when we plant evergreens, be they large trees or small shrubs for winter bedding. Do we use these evergreens abundantly enough? For myself I think not-decidedly not. For filling beds and borders close to the residence the following deserve attention: Rhododendrons, Enonymus Japonicus, various Retinisporas, particularly squarrosa and plumosa aurea. Also Japanese and canadian yew, which are very hardy. Small hemlocks also always look well; also box, American holly and Osmanthus ilicifolius. Engelmann spruce and Koster's blue spruce are much employed, but they seem, especially the latter, to scream out for notice wherever they are and spoil the harmony of so many plantings. It is very difficult to employ them correctly and effectively. Biota aurea must find a place, it is so neat and compact. Pinus strobus nanus and Pinus Mughus are each pretty and dwarf, useful for "bedding." Arborvitæs, Juniperus chinensis, J. Sabina, dwarf Norway spruce and Cryptomeria elegantissima are other subjects that can be used. This, however, does not fully exhaust the list as investigation of the catalogs of some of the good nursery firms, such as advertise in the GARDENERS' CHRONICLE OF AMERICA, will prove. Evergreens give warmth, shelter, beauty, and add interest to the garden and home surroundings in winter and spring, and most of our gardens can do with quantities more of them and be improved.

The Society of American Florists and Ornamental Horticulturists held its annual meeting and exhibition (Continued on page 404)

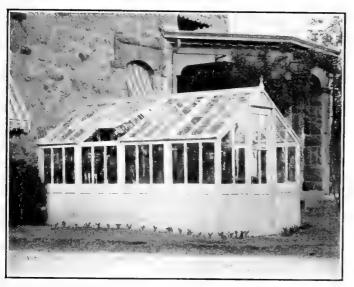
## That Little Greenhouse of Mine

By L. W. C. Tuthill, New York

Mrs. Lovell should have told this little story herself; told it because in my telling much of her delightful enthusiasm can but be lost. However, her reply to my first question of: "What did you grow in it?" struck the keynote when she replied: "Mostly fun—a great many flowers, but mostly fun." Then followed a regular fullisade of questions. On the following pages are given in brief some of Mrs. Lovell's answers.

"How did I come to have this little greenhouse?" Well, in the house below here, on the corner, where we used to live, there was a little half-conservatory, half bay-window affair that afforded me endless pleasure. You see, I was a city girl, and to bring me out here in the country away from the activity and excitement of its life, meant a call for some substitute to occupy my time and thoughts, and the growing of flowers proved in my case the happy, healthy solution.

So when we moved into this house something had to be done, as my love for growing things had become one of the delightful parts of my life. As the house is of stone, which meant endless tearing out, to build on a little con-



MRS LOVELE'S TILLE GREENHOUSE.

servatory, such a thing seemed impracticable, and besides there was some uncertainty how long we might remain. So I looked about, and with the help of my ever-readyreference friend, The Garedn Magazine, found that it was possible to buy for a surprisingly small amount a portable greenhouse which looked to be just about the

thing we wanted.

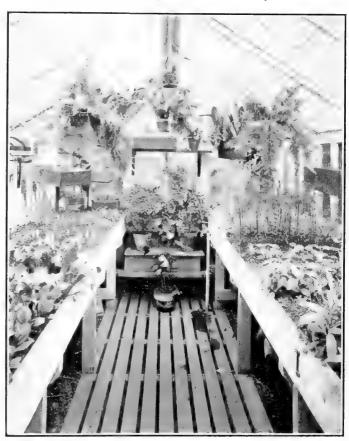
We ordered it and in a few days' time came all the materials, ready for immediate bolting and screwing together; and with them two men, who in an incredibly short time and set the iron posts that serve for its foundation, and the house was bolted to them; the plant-benches were put in place with their heating-pipes underneath. and a hole made in the foundation wall of the house to connect the hot-water pipes with the little boiler in the cellar.

When I saw them putting in a toylike boiler, my misgivings were many; but the toy soon proved itself a most dependable little friend and kept the house at 75 degrees all Winter long, with no trouble whatever. In truth, our first difficulty was in controlling the heat.

 $^{\circ}As$  fold by Mrs. ( ). H. Lovell, of Madison, N. J., who clear with the author.

"Did I really get right out in the house and dig and fuss with the plants?" ()f course; therein lies the best part of the fun. These poor benighted people who do not make friends with their flowers lose the very best part. And don't laugh at me when I say that flowers know their friends—actually know them just as dogs or cats do-and

"What did I really grow?" Well, take these two rooms for instance, with their five windows each; all Winter their window-sills were filled with blooming plants. Stocks we had in abundance, which as soon as the blooms "showed signs of fatigue" were taken back to the greenhouse for rejuvenation, and others brought, giving us a continual round of bloom. Stocks are decidedly satisfactory in every way, being particularly free from insect pests. And



VIEW OF INTERIOR OF GREENHOUSE, TAKEN LATTER PART OF MAY, WHEN MOSTLY FILLED WITH BEDDING PLANTS.

speaking of insects we had no real trouble with them, as once a week the ventilators were shut down in the afternoon, and tobacco-paper burned and the fumes left till next morning to accomplish their deadly bug work.

You will be surprised to know that our eight orchidplants thrived as if they were in their natural Brazilian haunts. The florist told me how impossible it was for an amateur to make them live and all that sort of thing, but, nevertheless, we had eighty of those exquisitely shaded lavender and purple blooms.

Then there were ten pots of freesias which held their heads high in full bloom for Christmas Day; not to mention the joyous golden sunshine of the daffodils-both trumpet major, minor and all the other trumpet kinds.

A comforting little patch of forget-me-nots always reminded me that the sky was blue no matter how gray the clouds were.

You know what tough-skinned, flavorless things the tomatoes are that you buy in Mid-winter; well, you ought to have seen our two vines which were trained in a single stem up the roof—it was quite an event when deliciously meaty tomatoes were served from our greenhouse, not in abundance, of course, but more than you would think two vines would grow. Next Winter we shall have more.

One gardenia and two camellias were most responsive, and considering the price the Fifth Avenue folk were paying for theirs, our thirty or more blooms from the one

plant were decidedly satisfying.

"What of the failures?" They really were few considering the fact that most of my friends spoke discouragingly, and the florists of whom I asked occasional advice shook their heads in a grandfatherly way. Three lessons we did learn—that snapdragons grow too tall and take up too much space in a small house—that carnations are coolheaded chaps and resent June temperatures—that it is a great temptation to fill the benches "too chockful," as our man Friday remarked.

Perhaps I have dwelt a little too much on the pleasures of such a house, but it has a very practical side as well, and that is the starting of plants for early setting out in the Spring. We grew in flats, hundreds of asters, cosmos, dahlias, ageratum, calliopsis, cockscomb, delphinium and stocks, not to mention peppers, lettuce and tomato-plants. In an average spring season such plants will give one several weeks' start over garden-sown seeds, but in a Spring as cold and discouraging as this one has been, it is a wonderful help. One of our neighbors, for instance, is just setting out his tomato-plants that look rather spindly (said in a whisper), while ours are stocky and already have green tomatoes on the size of hickory-nuts.

To me, the greatest value of this little house is the satisfying way it bridges that restless period between the dull dreary days of late Autumn and the fickleness of promising April. People growl about the trains—about the snows—about the slowness of the country, and keep themselves in a perpetual state of discontentment, when they might just as well take advantage of Nature's natural pause and get acquainted with what she stands waiting to do for you, if you will only friendly up to her flower-children and give them a warm, cozy little house to winter in. It is better than all your new thoughts, all your sanitoriums—all your nerve-tonics—because it is natural, and to be natural is to be reasonable, which is only another way of saying health and happiness.

#### THINGS AND THOUGHTS OF THE GARDEN.

(Continued from page 402)

at San Francisco in the third week in August. This national society is ostensibly a gardeners' society as well as a florists' one, and is intended to support and encourage the interests of professional gardeners; but in later years the S. A. F. has been obliged, whether it wished to or not, to devote practically all its time to matters of purely business concern; that is to say, to legislative, advertising and financial discussions pertaining to the commercial side of the horticultural, and particularly the floricultural, industry. The professional gardeners, moreover, have a strong and progressive society of their own—the National Association of Gardeners-so there is no need to worry, nor any need at all to complain. Ours is a many-sided calling, divided into the seed trade interest, the nursery trade, the florists, the parksmen, the landscape engineers, and last but not least, the professional gardeners. The time has come when each must attend to and solve its own problems. Each requires its own organization.

Under these large central associations there are the numerous local clubs and societies, as well as the totally distinct State horticultural bodies.

A great deal has been written and spoken in the past in regard to the commercial cultivation of bulbs in this country, particularly such kinds as come from Holland. In Washington State the Federal Government has its experimental farm and has gone so far as to colonize Hollanders there so that the skill necessary for the proper cultivation and propagation of hyacinths, tulips, narcissi and other bulbs may be ensured. We have also proof of the success of bulb culture, particularly tulips and narcissus, in Massachusetts, northern New York, Tennessee, Virginia and elsewhere. Given light sandy soil that can be well enriched with farmyard manure or similar organic material and fertilizers, there is no reason in the world why many hundreds of acres in all our large estates could not be devoted to the successful cultivation and selection of vigorous growing tulips and daffodils.

\* :

Considerable attention has been directed within recent times to the value of the graceful pinnate-leaved tree named Kölreuteria paniculata. Those who know it well and have made the closest study of the street trees and trees for parks, are unanimous in saying that it succeeds in a great variety of positions, and always looks graceful and pleasing. So far as the writer's experience goes the Kölreuteria seems to have a tendency to grow somewhat lopsided, crooked or much branched, but this may be, of course, through direct want of attention. No one can gainsay its beauty, and the real charm and attractiveness of its foliage. It also bears panicles of attractive vellow flowers. It is a Chinese tree, yet it does well not only in this country but in European gardens. Some one has suggested that its name is against its having become more popular, as there is no common name attachced

In looking over some notes in reference to greenhouse plants in English gardens, I was struck by the great diversity of kinds therein grown, and which are all too uncommonly seen here or even totally neglected. Very few gardens have what one would consider a large and interesting variety of green-house or warm-house plants. Of course, the gardener is not to blame, as he has to supply in so many cases almost unlimited quantities of the best decorative plants for indoor use as well as cut flowers and to do this requires all the space of glass at his hand. Where, however, the owner is a real lover of plants and flowers the gardener has a chance to introduce quite a number of subjects that otherwise are seldom seen. Take, for instance, the following list: Humea elegans, Leonitis Ieonurus, Impatiens Olivieri, Rehmannia angulata and R. Henryi, Streptosolen Jamesoni, Ericas and Epacrises in variety, Acacias, Ruellia macrantha, Exacum macranthum, Centropogon Lucyanus, Eranthemum pulchellum, Selaginella Watsoni and half a dozen other most beautiful kinds, Eupatorium ianthinum, Clerodendron fallax, Heeria rosea, Browallia speciosa, Plumbago rosea, Lobelia tenuior, Rochea falcata, scented Geraniums, Epiphyllums, Reinwardtia trigynum, Trachelium caeruleum, Medinella magnifica, Justicia carnea and J. myriophyllum (yellow). The semperflorens Begonias make good pot plants, and these various plants, together with forced bulbs, forced shrubs, annuals like Schizanthus, Alonsoa, Clarkias, etc., and Amaryllis, Cyclamens, Primulas, zonal Geraniums, Carnations and so forth, furnish something of value all the winter.

## Some Phases of Floricultural Education

By Arno H. Nehrling, Massachusetts

In order to appreciate fully the subject of floricultural education and the methods that are being followed in this progressive age by our American agricultural colleges, it is necessary at the outset to have a conception of the nature and scope of these great public institutions. These institutions are the outgrowth of the so-called agricultural societies which came into life late in the eighteenth century and immediately following the American Revolution. The immediate results of these societies was an agitation for agricultural schools and a number of such schools were actually established, one in Maine in 1821 and one in Connecticut in 1824. The natural conditions, however, did not seem to justify this movement on an extensive scale and it was not until the great West began to develop that the agitation for agricultural schools became apparent. This was in the late forties and fifties. At this time college education was primarily the business of the church and colleges existed on private subscription. The agricultural colleges were supported by private subscription and the struggle for existence was pathetic. At that time Pennsylvania and New York had agricultural colleges, but the movement came to an abrupt end about the time of the beginning of the Civil War. Only one state, namely Michigan, fared a little better. Here in 1850 about the time the agitation was at its height, some far-sighted man introduced a clause in the constitutional convention making it obligatory upon the state to establish and maintain a college or school of agriculture and in 1857 the college was opened for students. Many of our pioneer agriculturists and horticulturists, among them L. H. Bailey, Eugene Davenport, and our President Butterfield, received their education at this institution. Further development occurred in 1837 when Justin P. Morrill, then a member for Vermont serving in the lower House, introduced a bill into Congress providing a grant of land to each state for the purpose of establishing agricultural and industrial institutions. The bill had the usual experience of new projects. Once it passed both Houses, but it was promptly vetoed by President Buchanan. It passed again, however, and was approved by President Lincoln, July 22, 1862. Thus did the United States in the early days of the Civil War lay the foundation for a national system of agricultural and industrial education and thus originated the so-called Land Grant College. Each state accepted the lands and proceeded to establish its college according to its local conditions and its peculiar interpretation of the Morrill Act. In the East wherever there were struggling colleges, the land grant was turned over to existing institutions, whose faculties knew little and cared less about what the law intended to accomplish. In the West the funds were quite generally used to start state universities that too often operated in the interest of general education without devoting much energy to the propagation of the peculiar educational ideals which the Morrill Act was supposed to establish. In the Middle West an intermediate course was pursued. Michigan and Pennsylvania already possessed each an agricultural college. In both cases the proceeds of the land grant were at once turned over to these institutions, and all energies were devoted to agriculture, ignoring for many years the mechanical interests provided for in the act.

These new institutions simply did the best they knew how as they were without teachers, without matter, methods or ideals and above all without an enthusiastic

\*Professor of Floriculture, Massachusetts Agricultural College, Amherst, Mass.

clientele, for farmers at that time generally ridiculed book farming. This, however, is not the case today, which is clearly illustrated by the large attendance at the various colleges of agriculture. Illinois in 1900 had nine students and two teachers. At the present time they have between 700 and 800 students and over 100 men in the faculty. The development at Cornell has been still greater and here in Massachusetts gains in enrolment are significant.

Of all the separate agricultural colleges that of Massachusetts founded in 1863 is the only one strictly agricultural. The work of the other overlaps more or less and in addition to the agricultural work they consider

other subjects such as engineering.

The agricultural colleges of today contain many departments and horticulture is usually one of these departments coordinate with others. The first institutions to develop horticulture as a separate subject were Michigan in 1867 under W. W. Tracy, and New York in 1874 and Ohio and Iowa in the order named. At our institution courses in Botany and Horticulture were offered by Prof. Clark, then President of the College, as early as 1878. In 1896 further development occurred and at that time all the so-called horticultural work was turned over to Prof. Maynard. This work included pomology, floriculture, market gardening, forestry, plant breeding, etc. In 1902, Prof. Waugh came to the college to take charge of this work and the actual development of the work dates back to that time. The time soon came when he could not handle all this work and in 1904 the floricultural work was turned over to Mr. Francis Canning. There was a popular demand for this work and in the fall of 1906, the College realizing the value of trained men in this branch of horticulture, began offering a specialized course in floriculture under the direction of Prof. E. A. White. In 1908 the courses became still more specialized and from the meagre beginning has developed the present Department of Floriculture. About this time a number of other state institutions began to divide up the horticultural work. Illinois in 1908 established a Division of Floriculture and Cornell, although more or less complete courses in floriculture were offered under Prof. Bailey's direction, has since then developed a strong department. Other institutions are offering work along floricultural lines, but the work is not as highly special-

Before discussing the individual lines of work considered under the heading of floriculture I would like to mention the fact that the Missouri Botanical Garden (Shaw's Garden) has since 1885 given special attention to the training of men for floricultural pursuits. Henry Shaw, the founder of the Garden, having in mind the development of efficient gardeners, in his will of January 26, 1885, inserted this paragraph;

"I declare my intentions that instruction to garden pupils shall be attended to, both in practical and scientific horticulture, agriculture and arboriculture. I leave the details of instruction to those who may have to administer the establishment, and to shape the particular course of things to the condition of the times."

The Board of Trustees, on assuming control of the Garden, gave this feature of Mr. Shaw's will their very early consideration. In December 1889, the first announcement concerning Garden pupils was issued. In this we find the following: "In accordance with the intentions of its Founder, the Trustees of the Garden propose to provide adequate theoretical and practical instruction for young men desirous of becoming gardeners."

The system used in this instructional work was modelled after that in use at the Kew Gardens, England, and floriculture was from the beginning the most important phase of the work. This system has been giving excellent results and these courses have actually been the foundation for the work we are giving today. The important factor in this course is the emphasis that is put on the practical work as it gives the student the assurance and confidence that he understands the tasks set before him and the best ways to accomplish them. In this country today we owe much to the European trained men who received their training under a similar system.

Coming back to our problem of floricultural education, it is my firm belief that floriculture in all its phases is becoming more and more scientific; that is to say, more and more dependent on the result of scientific research and discovery and surely it must give a man greater confidence and power if he has had a term or two at a school or college where the subjects in which he will be engaged in the earning of his livelihood are highly specialized. Above all, of course, he must have practical experience: that is taken for granted, but if he understands plant life, chemistry, the habit and structure of insect pests, and the life history of fungi and other such things, he is surely a better man at his vocation. Practice with science, in other words, is the ideal for which we should strive and we are following this plan as far as existing circumstances will permit. Our system is by no means ideal; it will take years and years to develop methods such as those under which our successful gardener of the present day received his training.

We have done our utmost to keep up with the wonderful progress that is being made in all lines of floricul-

tural work.

In selecting the allied subjects which aid in rounding out a well balanced course in floriculture, only those giving the most beneficial training have been selected. The value of the course lies in the strictly scientific and fundamental training. The object of the work, then, is not to turn out specialists or men who have mastered all the details of practical work. If a man wishes to specialize along any particular line, he must first obtain this practice on some up-to-date establishment. In this connection I wish to say that we always urge our men to go into practical work during the summer months and vacation periods. I think the time is near at hand when every student taking a course of this nature will be required to have at least one year's practical experience before he receives his diploma. The Rhode Island Agricultural College has just recently passed a ruling to this

As a separate college course the floricultural work is comparatively new. It only approaches the apprentice system, the Kew and Edinburgh system, under which our successful gardeners of the present day received their trainings. I have often heard the statement that there are no good American florists and gardeners. This is true to a certain extent and for this reason it is our duty to see that any one who wishes to go into this work should have only the best educational facilities and training. So this problem which we are trying to solve is your problem as well as ours, and you practical gardeners and florists can be of great assistance to us.

While I fully believe that the gardeners and florists of today are as progressive and broadminded as any other group of professional men, they have been slow in encouraging this work and in giving the coming generation a better foundation for the profession which has made such wonderful strides the past twenty-five years.

That a man in choosing this line of work must have a love for nature in order to be successful is a well known fact. It means more than watching and waiting developments. To my knowledge there is no line of work where the duties are more exacting.

That more has not been done along the lines of floricultural education is not so much the fault of the institutions as the fault of the people. Before we can expect active support we must prove to you people that we are working along the right lines-in other words, we are after results. As the work is still in its infancy it is rather difficult to give you accurate figures; however, I can say frankly that nearly all the men who have actually gone into this work are today fairly successful. I am keeping close watch on the men who are going out from here and in a few years I hope to give you more detailed information on this point. To the question "Does the instruction given along floricultural lines in the agricultural college influence floriculture?" I can only say that we are creating new interest. The key note of this new interest is better methods, business organization and a knowledge of the scientific principles underlying successful practice. Education along general agricultural lines seems to be remarkably successful, and I see no reason why we should not be equally successful along educational lines in our highly developed specialty.

#### THE HERBACEOUS PHLOXES.

These useful hardy flowering plants are equally as valuable for small as for large gardens. From the middle of July onwards they continue to produce an abundance supply of flowers until the damp days and nights destroy their beauty. The few first frosts do not usually do them much injury, at least, not to the same extent as damp. The soil best suited to their successful cultivation is a good loam not of too light a nature, as when this is the case there will be a tendency to suffer from drought in dry weather, and this should always be carefully guarded against. A position that is tolerably moist and cool during hot weather is well adapted for their requirements. When this can be secured, even with a less amount of sunshine, it is better than being too fully exposed to the heat and drought. Poor soil, or that which is light and gravelly, should be enriched with cow manure previous to planting, being deeply dug at the same time. They thrive very well indeed in a heavy loam with a tendency to clay. Whenever they are found to grow freely and flower profusely it is not a good plan to add much manure, but better to leave them for a few years as they are. After a time they will show signs of weakness, then the best plan will be to add manure to the soil or remove them to a fresh piece of ground. When this is being done the clumps may be divided as necessary. This is a very good and simple way to cultivate them for all general purposes. Where, however, more extensive propagation is necessary, or when plants of extra vigor and strong spikes are the chief aim, then propagation should be by means of cuttings taken off just when of sufficient length in the spring and struck in sandy soil in pots in a cold-frame. When well rooted these may be planted out permanently or left in pots and plunged for the first year, and planted the following spring when commencing to grow. This plan gives rather more trouble, but no doubt better plants are thus obtained. Large established clumps always throw up a superabundance of shoots every spring; as soon as the strongest of these can be fairly distinguished, all of the weaker ones should be thinned out sufficiently for each shoot to develop without being drawn up weakly. Those growths remaining will thus increase in vigor, and at the same time remain more dwarf and compact with less need afterwards of any undue amount of staking and tying, (Continued on page 408.)

## Work for the Month of October

Conducted by Henry Gibson, New York.

THE FLOWER GARDEN.

Lifting, dividing and resetting of hardy perennials that have become too crowded should be completed as

soon as possible this month.

Most hardy bulbs are obtainable now and should be planted at once. Crocusses are better for early planting and a sunny location suits them best. Scillas of all kinds succeed best in the shade, and for the size of the bulb require to be planted comparatively deep; 4 to 5 inches is not too much. They will multiply rapidly if allowed to seed. Snowdrops, Chionodoxias, Grape Hyacinths and the graceful Camassias should be covered to three or four times their depth, and to produce a really striking effect, thick planting is essential.

Hyacinths, Tulips and Narcissus that are to take the place of the summer bedding plants, should not be left out of the ground too long. It is generally conceded that this work should be completed in two or three weeks after the maple leaves begin to drop from the first frost. A layer of sand beneath the bulbs is always advisable, especially on heavy retentive soils. Green animal manures should not come in contact with the bulbs, but be buried at least 6 inches beneath the base of the bulbs when planted.

This department should receive a thorough cleaning up in order to maintain a neat appearance as long as possible. Cut down all dead stalks and clean the spaces between the plants in readiness for the winter

mulching that is to be done later on.

#### TAWN AND GROUNDS.

Bay trees, Hydrangeas, Oleanders and similar plants that have been used for decorative purposes, must now be placed where they can be taken inside on frosty nights. Do not, however, take them inside too early or they will get soft and winter badly. Lily ponds should be drained off and protection afforded the more tender plants. Wrapped in clean straw, many of the tender Nymphaeas winter well in a cold frame. The transplanting of deciduous hard-wooded trees and shrubs should be pushed ahead. Such trees as birch, oak and beech are perhaps better moved in spring, but any of the others are as well planted now.

Keep the lawn cropped close right up to freezing weather. If a late fall growth is left, it usually dies during the winter, which not only looks unsightly, but seriously hampers mowing operations in the

spring.

All loose vines should be securely tied before they are broken by being blown about by boisterous winds.

#### THE VEGLEVEL GARDEN.

Onion sets for spring bunching may be planted now. Killing frosts may be expected in many sections of the country this month, and tender vegetables should

have some protection.

Strings or wire attached to short stakes, run the length of the rows, will prevent the protective material from breaking down the plants in the case of string beans or bush limas. Pole limas are not so easily protected, but by pulling up the poles and loosening the vines they may be laid on the ground and covered. A few barrels placed near the egg-plants and peppers are useful for slipping over these plants on a cold

night. Salt hay makes an excellent covering for lettuce and endive. Spinach may be similarly treated. Late celery may still be earthed up. It requires a good deal of attention now, as it grows rapidly at this time.

New asparagus beds may be planted now. Some protection during the winter will be necessary, but asparagus starts into growth early in the spring, and by fall planting one has the advantage of an early start.

Carrots, beets, chickory and other root crops need to be gathered and stored now. Do not put away any of these vegetables whilst wet, nor do not store in a damp cellar unless a raised platform is made to place them on.

All late fruits should be picked before there is danger of freezing. New fruit trees other than peaches may be planted. Peaches do better when spring planted.

#### A LIGHT ABLIS UNDER GLASS.

The first crop of vegetables, such as cauliflower and lettuce, should now be ready for benching. Beans may also be sown in the greenhouse. Beets and carrots for winter use should be sown at once. Radishes may be sown between the cauliflower in the benches. Cucumbers for fruiting in late winter should be started now.

#### THE ROSE HOUSE.

Now that ventilation has been reduced, and fire heat again required, a sharp lookout must be kept for insect pests. Red spider is a factor to be reckoned with, and green fly is a common enemy. The plants should continue to grow freely, and liberal treatment as regards watering, feeding, heat and ventilation should be given. Keep all the air possible on at night except in severe weather, so as to keep the plants as hardy as possible.

#### CHRYSANTHEMUMS.

Chrysanthemums will be showing color early this month. Fumigate the houses thoroughly just before the buds burst to insure the flowers not being infested with black fly. Stop feeding as soon as the buds show color, save perhaps an application or two of soot water, which will improve the color. Watering should be done with care and the floor dampened down only early in the morning so as to leave the house as dry as possible over night. Condensed moisture settling on the petals of the expanding blooms at night soon starts them to damp off. Less and less water is required as the blooms mature, and we find it good practice to do any watering that is necessary late in the day with a can. A free current of air should be allowed to circulate through the house by keeping the side ventilators open a few inches, setting up, as it does, a steady upward movement of air through the top ventilators. On damp, heavy nights a little heat in the hot-water pipes will rid the atmosphere of that cold, dampy feeling and prevent moisture condensing on the blooms.

#### FORRALNE AND CINCINNAFI BEGONIAS.

These subjects are now sending up growths that will make them charming plants at Christmas, and this is the time to attend to the tving and staking. This

should be done so that the plants assume a natural appearance. Raise them close up to the glass, by erecting a temporary bench on top of the permanent one if it be low, or by means of invented pots. The shading may be reduced from now on and the plants gradually inured to full sun. Fumigate to keep green fly and thrips under control. A layer of tobacco stems between and under the plants does much to keep insects away. Ventilate carefully now that we are running into shorter and cooler days. The temperature should not go below 55 degrees nor exceed 70 degrees at night.

#### MISCELLANEOUS PLANTS.

Poinsettias should be kept in a minimum temperature of 60 degrees at night to prevent loss of foliage. Cinerarias and Primulas should be potted on as they require it. Lilium formosum may be potted now. Stocks of the various bedding plants should be prepared. Bellis perennis, Mysotis, Pansies and other perennials still in the seed bed may be transplanted into cold frames.

## FRUIT CULTURE IN POTS. By W. R. Fowkes, New York

Fruit culture in pots is a very interesting occupation and also a very satisfactory way of obtaining fruit where no regular fruit or orchard house is employed. The present is an opportune time for the gardener to prepare for this addition to their houses in winter. In many large places these plants are grown as ornamentals to beautify the dining room and to allow the guests to take off the ripe fruit themselves.

But I am penning this article for an average, or smaller place with limited glass room. The cost is small. The thing to do now is to order some peach and nectarine trees three years old. They can be procured from any first class nursery, a list of which is to be found each month in the CHRONICLE'S advertising columns.

When received, shake a goodly portion of the old soil from the ball and repot into the same size, or not more than an inch shift if possible. The trees usually arrive in nine or ten inch pots. Pots must be clean. Drainage is important. Place a large crock or tile over each hole and fill up with two inches of coal cinders, or mortar rubble if it is to be had. The proper soil is a rough sod, which if efficient in lime must have a good sprinkling thrown in when compost is mixed, one-fourth well rotted manure and a six-inch pot of wood ashes to every barrel load of loam being all that is necessary. Pot with your soil in a medium condition and make the whole firm and finish off level leaving two inches for water.

After potting, place in a cool shed with air all the time. Give a thorough soaking of water at the roots. When frost comes protect the pots with sufficient straw and leaves to protect the pots from cracking. Frost will not hurt the plants, but will do them good and if no cool shed or cellar is to be had they can remain outdoors, the pots requiring a much heavier protection of straw which must not be put on until they are frozen sufficiently to exclude mice, which will do harm to the bark of the trees.

The next step is when to start to force them. To begin with, they should be brought into a cool house of any description, providing it is light and airy. They must, however, now be studied and not sacrificed to grow lilies. etc., but mums that are needed for cuttings, roses in pots needed for Easter and hydranges can be handled together. The temperature must not exceed 34 degs. Fahr. to commence with and if started the latter part of De-

cember, or even in January, they can be kept for two weeks in that temperature. Give a good watering at the roots, also spray every portion with aphine as a preventive of scale and other pests. This is very important only use sufficient heat to keep from freezing. On bright days syringe to enable the buds to lump up and swell. In a few weeks they will burst into bloom and they must receive as much ventilation with discretion as possible; also keep the house a little drier, but on no account allow dryness at the roots, or much will be lost. A higher temperature can be maintained but must not exceed 52 degs. Fahr. at night. A successful setting depends now on careful watering, also fertilizing the flowers which had better be gone over daily with a camels hair brush; but bees are the best fertilizers and should be encouraged by bringing to the house a few pots of freesias, hyacinths or wallflowers in bloom. When a good set has taken place, clean off all dead blooms from the fruit and syringe very gently to enable the growths to develop and the fruit. The house can be syringed at 2 p. m. and closed down, giving a little air on the lee side at 5:30 p. m.; still be careful not to overheat at night.

As the fruit develops rapidly more water can be given and a humid atmosphere kept up to prevent red spider.

It is in the next period that the crop can be secured or lost. Namely, the stoning period. The stone begins to form when fruits are size of an English Walnut and for a short time a check, almost a standstill, is given to the plant, and this is the important time and one that must be religiously observed, namely, the temperature, watering and ventilating must be kept as even as possible.

When stoning is past, all undeveloped fruits can be picked off, also a few that crowd each other. A closer atmosphere with good thorough syringing noon and afternoon can be given. The young shoots which form next year's crop must be selected and others rubbed out with the thumb and finger.

When the growth retained has grown about seven inches the point must be taken out. At this time, with the tree carrying fruit, the leaves will sometimes assume a pale green or sickly appearance. This denotes a lack of iron in the soil, which can be remedied by giving a watering of sulphate of iron once weekly—one ounce to the gallon of water. If surface roots become exposed, give a top dressing of good soil similar to what the plants are in. A sprinkling of bone meal and wood ashes will help to finish the size of the fruit, which treatment must be discontinued directly the fruit shows color. When the fruit is ripe the houses must be kept cooler and drier.

Varieties can be grown together in the same house. A good nurseryman will supply you with suitable kinds for the purpose.

#### THE HERBACEOUS PHLOXES.

(Continued from page 406.)

both of which are objectionable whenever they can well be dispensed with. Hardly any of either one or the other is necessary with the dwarfer kinds when the shoots are not drawn up weakly, but the taller varieties do certainly require some support. This should be given them in good time before the shoots incline outwards from the perpendicular.

These Phloxes are very useful for cutting, looking well when arranged by themselves, two or three colors together. The faint but delightful fragrance of the flowers can hardly be found fault with by the most sensitive in this respect, whilst they last for several days in

good condition. This latter point may be further enhanced by using for the spikes receptacles which hold a good quantity of water, so that the sten's may be a good depth into the same. Small side shoots taken off before all of the spike is in flower do remarkably well for small-sized vases or glasses. A few spikes of any of the ornamental kinds of grasses would associate very well with these Phloxes, but do not attempt to add to the effect by introducing flowers of a quite different character, either in color or formation.

Had I to keep a good supply of flowers in the conservatory during the season these Phloxes are in bloom, I would have several of them in pots well prepared for the purpose. Good plants could thus be had in 9-inch or 10-inch pots that would lend quite a distinct feature, and where they had not previously been grown would constitute a pleasing change to the o umary run of flowering plants then in season. They should be potted on from cuttings the previous year and plunged out-of-doors to the rim of the pot. In this way well-established plants could be had, which, when plunged, give but little trouble in watering. Care must be taken, however, that the plants do not suffer from want of water, more especially when the pots are well filled with roots. After flowering in pots they may either be planted out or shifted on to larger pots for another season.

As the season is now advancing for these Phloxes, note should be taken of the varieties seen in flower. Planting had better be deferred till the spring, when growth is commencing, taking the precaution to well prepare the soil when vacant in the autumn.—Gardening Illustrated (English).

## GLADIOLUS GROWING FOR PLEASURE. By P. W. Popp

The Gladiolus is easily the most popular out-door flower of today, almost every color taste may be gratified. The Gladiolus will thrive and give results with but little care, and again the most remarkable results will forward any extra care or attention that is rendered. A season of bloom from July until cut down by the hard frosts may be enjoyed by successive plantings. Even early in June flowers may be had, where the convenience of a greenhouse or hotbed is at hand. To start the corms that may be planted in the open after danger of frosts is over, a convenient method and one within the reach of all, is to use the ordinary square quart size berry basket, from one to three corms may be planted according to size, barely covering them and having the baskets about level full of earth. Ordinary garden soil with the admixture of a little sifted coal ashes makes a good compost, friable and easily drained, to which the roots will cling when the basket is removed prior to planting out. This is easily accomplished by cutting the corners with pruning shears, and sliding the entire "ball" out, which is then planted without disturbing the roots.

Plants so as to have the top of the corms at least three inches below the surface. A depression may be left about each one, which will catch the rains and also allows the sun's rays to penetrate and warm up the soil. Cultivating will gradually level up the surface these deep planted Gladioli require, but very little support when the plant is large and bearing a heavy flower spike: as a precautionary measure against the blue aphis or other insects that are sometimes found under the outer covering of the corms. I always soak them for a few minutes in a tobacco or nicotine solution "Aphine" or any other good commercial product, using a solution slightly stronger than that recommended for spraying. This also

The ideal fertilizer for any crop is well decomposed stable manure, but this is not always available. A "Complete" manure such as used for potatoes is an excellent substitute. Bone meal or pulverized sheep manure are also good. Alternating these with wood ashes fortnightly, cultivating after each application, and watering thoroughly when necessary. An occasional dressing of air-slaked lime is very beneficial in keeping the soil sweet. After the flowering spike is well defined, a light applica-

acts as a repellant to any insects that might be in the soil.

tion of Scotch soot and worked into the soil is grand medium for intensifying the colors of the flowers, especially the pink shades.

The real beauty of the Gladiolus is only realized in September or later, when the flowers have more substance, the colors brighter, and the spikes finished with a greater number of open flowers at a time. The blue heliotrope and lavender shades are especially fine; in July and August the hot sunshine and the pollenizing effects of insects cause the flowers to "go to sleep" almost as soon

as they open.

For a long season of bloom the following method will be found convenient and practical: About April 1 take out all the Gladioli from the winter quarters and divide each variety in as many parts as it is desired to have plantings. Take paper bags and mark the planting dates on each, in the vicinity of New York City July 1 is about the latest safe planting date, to insure getting all the blooms, and assure ripening of the corms, select all the largest and heaviest corms for the last planting; all bublets and small corms are best planted at the first planting; each set of bags according to planting dates are then placed in boxes, leaving the top of the bags open for circulation of air and prevent heating; these boxes are then placed in a dry, cool cellar until the special dates for various plantings occur. A good vegetable cellar is an ideal place. Of the many methods tried I have found this to be the very best, as I find but little shrinkage in the last lot planted. We plant double or zig-zag rows five inches apart, 24 inches between the rows. This allows convenience in cultivating and gathering the flowers. High cultivation sometimes renders it necessary to afford some support. This we furnish by driving stout Bamboo canes in a single line four feet apart, stretching jute twine, down one side of the row and up the other side turning a loop around each stake, this allows a free circulation of air, and supports the spike as long as neces-

When the Gladioli have all bloomed it is well to give a thorough weeding and cultivating, with an application of lime to the soil to sweeten it and release the latent properties of the fertilizers that have been used. This benefits the corms in the soil and insures good stock for the next year. Digging the corms should be done before the foliage becomes too much ripened. Six inches of the stalk may be left on the corms to advantage. When first dug they should be spread out in a thin layer in a cool, airy place until thoroughly cured. After being well ripened and thoroughly dried the tops may be cut off close to the corm, the last year's corm removed, and then packed in thin layers about two or three deep in shallow boxes and placed in a cool, dry, frost-proof cellar. A thick lining of newspapers in the boxes is a good insurance against extreme drops in the temperature.

Send your subscription to begin with July number to
THE CHRONICLE PRESS, Inc., Publishers
The Gardeners' Chronicle of America
288 Fifth Avenue, New York



## Golden Gate Park, San Francisco

By John, McLaren, California

The Park System of San Francisco comprises thirtythree parks varying in size from two to ten hundred acres.

The largest park in the system, Golden Gate Park, is located on the easterly shore of the Pacific Ocean and has a frontage on the ocean of half a mile. Its entire area has been reclaimed from the shifting sand dune state by planting, until now it ranks in many respects with the best parks in the country.

Where barren sand dunes prevailed a few years ago there is now one thousand acres of planted land covered with a growth of healthy forest trees and flowering shrubs, also lakes, ponds and waterfalls, children's playgrounds, baseball meadows, a stadium (in which is located a trotting track, a five-eighths mile bicycle track, a quarter mile cinder path, and football and cricket fields), miles of drives, walks and bridle roads, tennis courts and conservatories.

The Spreckels Temple of Music is a beautiful structure built of grey sandstone with peristyle effect, forty-five feet in width and seventy-five feet high accommodating one hundred musicians, costing in the neighborhood of \$75,000, and the gift of Claus Spreckels. In front of the temple is a terraced out-of-door auditorium with a seating capacity for twenty thousand persons, shaded with a leafy canopy of elm, linden and sycamore trees. Around the concert grounds is a double carriage drive where autos and carriages parade and their occupants can have pleasant greetings with their friends when they meet or pass each other while listening to the music.

There are also rocky ravines with hundreds of stately tree ferns with stems fifteen or more feet in height and leaves ten feet long and six to eight feet wide, in perfect health and making splendid growth under shade trees on the stems of which the Staghorn ferns are growing vigorously, creating a strange effect new to American parks.

The forests contain fine specimens of native and exotic trees, most of which are peculiar to California and cannot be grown successfully in any other state in the Union.

California is very rich in variety of native trees, especially the conifers, most of which are now represented in the Park System. The coniferous collection includes the Abies Bracteata, the rare Picia Breweriana, the Abies concolor, Abies Magnifica and Nobilis, the Pinus Lambertiana, Pinus insighis, Pinus Torreyana, Cupressus Macrocarpa, Cupressus Lawsoniana, MacNabiana and Goveniana, and, of course, the two Sequoias: Sequoia Sempervirens and Sequoia Gigantea, the Libocedrius decurrens, the Thuva occidentalis and gigantea, etc. There may also be seen many exotic firs, pine and spruce, including the beautiful Abies Morinda from the Himalayans, the cedars of Lebanon, the Mount Atlas cedar and the cedar of India, all doing well and enjoying good health. Native oaks are also well represented, many of the thirty species native to the State becides many eastern and Europeans being fairly represented.

The California population has been recruited from many of the nations of the earth and when emigrating have brought with them or sent back for favorite trees, shrubs and flowers from their former homes. Our friends from the northern States brought their Elms, their Maples and their Oaks; our southern friends sent their Magnolias, their Rhododendrons and their Laurels, etc.; the Italians and Spanish brought the



HUNEINGTON THE GOOD VIGALL PARK

Olive and the Cork Oak; the French their Grape Vine and Horse Chestnuts; the Germans the Copper Beech, Firs and Linden; the English their Oak and Yew, and the Irish, Yew, Silver Holly and Fir; the Scotch their Firs, Brooms and Heather. In fact, all European countries have sent their best and they are all thriving happily.

bined in giving us the Eucalyptus, more than forty

Amongst other plants Australia has sent us numerous fine shrubs, including more than thirty species of Acacia, all gorgeous bloom carriers.

New Zealand sends us over twenty species of Veronica, as well as O'Learias and the Kauri Pine, together with many varieties of handsome tree ferns.

The Japanese brought the Camelia which is growing in large groups, the Retinospora, Theavopses, Laura Camphora, etc.

Chili sent the Aracarias and Escallonias in many varieties and all are doing splendidly

No public park in either Europe or America has or can have the variety of plant life growing out or doors that is found in California. The climatic conditions being so mild and even in temperature plants from cold countries as well as plants indigenous to semitropical regions find favorable conditions in this park. Among flowering plants for example, Fuchsias grow more than fifteen feet in height, Geraniums grow almost as high and they are in flower twelve months in the year. The Violet begins to blossom fit October and continues in flower until April. Cinerarias may be seen in flower out of doors early in March; Cyclamen bloom all Winter and the Coronilla, the Cytissus racemosa and Polygala Dalmaisiana are always flower. mg. The Frica, in twenty species, blocus from No. vember to May

California is the natural home for the plant lover, no matter what his taste may be. He may grow the (Comt | not on for a 422)



THE MUSIC CONCOURSE AT GOLDLY GATE PARK WITH ITS PLANTINGS OF VARIATED TRIES 22 1990 C.

### GARDENERS' CHRONICLE

OF AMERICA.

Published by

#### THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK MARTIN C. EBEL, Managing Editor

::

::

EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Foreign, \$2.00

Entered as second class matter Nov. 3, 1914, at the Post Office at New ork, N. Y., under the Act of March 3, 1879.

Published on the 10th of each month. Advertising forms close on the 1st preceding publication

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### NATIONAL ASSOCIATION OF GARDENERS

President, J. W. EVERITT, Glen Cove, N. Y. Unce President, W. S. RENNIE, Ross, Cal.

JAMES STUART, Mamaroneck, N. Y.

Secretary, MARTIN C. EBEL, Madison, N. J.

#### TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; Wm. Turner, Mendham, N. J.; Geo. W. Hess, Washington, D. C.; John H. Dodds, Wyncote, Pa.

DIRECTORS.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello. Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

Pres fort EMIL T. MISCHE, Portland, Ore. J. W. THOMPSON, Seattle, Wash, JOHN F. WALSH, New York, N. Y

ALEX STUARI, Ottawa, Ont. E. P. GRIFFIN, East St. Louis, Mo.

Secretary-Treasurer, ROLAND W. COLTERILL, Seattle, W.sh I. P. JENSEN, St. Louis, Mo. EUG. V. GOEBEL, Grand Rapple, Mich.

Vol. XIX.

SEPTEMBER, 1915.

No. 9.

New York, September 13, 1915.

Editor, GARDENERS' CHRONICLE:

During the long trip taken by the eastern delegates to the Convention of the American Association of Park Superintendents, stopovers were made in sixteen cities. The park officials of each one of the cities visited were unfailing in their courtesy and their hospitality, and gave us such excellent opportunities for seeing the various park systems, under the very best of guidance. During the hurried trip, so many things were seen, that the impressions which were crowded upon us day after day, will take a long time to sort and classify, but preeminently above them all stands the impression of being welcome wherever we went. As Chairman of the Transportation Committee, I cannot but beg space of you, Mr. Editor to herewith publicly give an expression of thanks, personally, as well as for the entire party, to the officials and others who made the long journey such a splendid success. I feel truly sorry for every member who had to miss the opportunity of taking the trip.

Tery truly yours,

HERMANN W. MERKEL.

#### THE LATE JAMES ALLEN

It is with the deepest regret we have to report the demise of James Allen, who passed away very suddenly on August 17. The news came as a great shock to his many friends. Mr. Allen, who was in his forty-eighth year, was born in Kent, England, coming to this country while a very young man. He was employed several years on commercial places, including that of the late Peter Henderson; later he held several important positions as private gardener. At the time of his death and for fourteen years previous he was head gardener to Mr. A. D. Juilliard, Tuxedo Park, N. Y., where he justly earned the reputation of a capable and ardent horticulturist who was highly respected by his employer and esteemed by his many friends. Besides his wife Mr. Allen left a son and daughter to mourn his loss, and to whom the sympathy of all his friends is extended at this, the hour of their sad bereavement. He was an active member of the Tuxedo Horticultural Society, and at one time was for several years its treasurer. Those who knew him best will miss him most.

#### COMPETITIVE BROTHERHOOD

Would it portend the dawn of the millennium if all the petty jealousy which so often disturbs the peace of competitive horticultural efforts should cease? At this season, when exhibits claim so much attention, we are surely given a splendid opportunity for thought along this line. Is there such a thing as competition? Does the man who gives time and thought merely to compete and win always come out the winner? Competition is not what is needed, if by competition we mean only a grouchy desire to beat the other fellow. Individualism is what will count. Success usually comes to the one who stands on his own feet and figures out some original plan of procedure.

Did you ever stage an exhibit and have the other fellow avoid it as if it were decked with poison ivv? Did you ever put up a new plant or flower which you knew to be a gem and a credit to the profession you had adopted, and then wait patiently for the other grower to tell you how pleased he was that you had succeeded in bringing out something so fine? You probably received your first word of appreciation through the papers, which is cold sympathy compared with a hearty handshake. Since my association in horticultural work, I have often been led to ask those with more experience why there was not a broader-minded feeling for the advancement of all horticultural interests, instead of this all-absorbing interest in personal gain. The answer has been that such philanthropic principles would not increase the bank account. This may be truth, but no man can grow all the bulbs. or supply all the flowers, nor introduce all the new pinks, blues or yellows. Each has some individual aptitude which is bound to work out eventually for the common good. There is in each and every man a vein of goodfellowship, large enough and strong enough to stand the test of the Polly-Anna gladness. Glad that an opportunity was given to win or lose and glad of a chance to come back. Someone will ask, "Come back for what?" If for no better reason, just to help in the everlasting struggle to make this old world a better place to live in.

Henry Worthington gives sound advice when he tells us to rejoice in all the honors which come to those we know. That you know them makes you a partner in their fame; that you rejoice with them brings you their friendship. If exhibits must be competitive, it should be our endeavor to make them the material expression of a competitive brotherhood.-Mrs. B. Hammond Tracy, in Gladiolus Bulletin.

### NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

#### SUMMER MEETING AT SAN FRANCISCO, CAL.

The Summer Meeting of the National Association of Gardeners was held in the Civic Center Auditorium, San Francisco, Cal., Wednesday, August 18, 1915. In the absence of President John W. Everitt, of New York, Vice-President William S. Rennie, of California, presided. Mr. Rennie welcomed the visiting members to California and expressed his regrets at the inability of the other officers, who had planned to attend the meeting, to be on hand. He presented the following message from President Everitt: "To the Members of the National Association of Gardeners,

"I cannot think of a greater privilege that could come to me than that of presiding at the first meeting of our national association on the Pacific coast, but, though some of us who pursue the calling of gardening are more our own masters than many of those who have left our vocation to engage in commercial fields, we have responsibilities which must receive first consideration if we are faithful to our employers who place their trust in us. So, while I have been looking forward to the opportunity of clasping hands with my brother gardeners on the western shore of our country, the United States of America, circumstances beyond control, that have arisen at the last moment, have made it impossible for me to make the trip. I regretted this the more when I learned that our secretary, who has been faithfully working for nearly a year for a successful summer meeting at San Francisco, was suddenly forced through ill-health to give up his trip.

"Whether we come from the east, the west, the north or the south, as professional gardeners our aim should be to produce a broader development for ornamental horticulture which cannot fail to bring greater recognition to our profession, and which will ultimately result in increasing benefits to those in it.

"Our national organization, the National Association of Gardeners, should be our nucleus for the expansion of our energies and it should have the earnest support of every gardener loyal to his profession. Its scope is national, and through the co-operation of the many local horticultural or gardeners' societies scattered throughout the country, combined with the individual efforts of its members, it should grow and accomplish much in the interest of that for which it is striving; but this can only be accomplished through united co-operation and individual effort.

"We are fortunate in having in California our able Vice-President, William S. Rennie, to officiate, and I have every confidence that the fraternal ties of our profession between the east and the west will become more united as a result of this gathering.

"A strong national association of the gardeners, heartily supported by those who follow the profession, I believe could be made most powerful and influential in its work for the good of the profession, although it may at times prove disappointing to individuals seeking direct benefits from it. It is, as you are aware, the policy of our association to develop along lines where it will serve its members and aid those striving to advance and better themselves in their calling. We have committees at work endeavoring to thrash out the problems with which an organization like ours is confronted in its development stage, and these committees, and also your officers, at all times court and welcome suggestions from members which may be valuable in aiding the progress of the organization.

"In the east and middle west the National Association of Gardeners is already truly representative of the best element of those engaged in professional gardening, and it numbers in its roll of membership, practically all who rank foremost in the profession. Within the past year it has made rapid strides in the far west in enlarging its membership, and I appeal to my brother gardeners of the Pacific coast to continue this good work by enrolling in our association all those properly entitled to the calling of gardener and let us all co-operate to place our association in the front rank of horticultural organizations.

"J. W. Everitt, President."

As the meeting was an informal one, there being no regular business to come before it, a general discussion regarding the gardening profession and the relations of the National Association of Gardeners towards it was entered into, in which many of those present took part. While the meeting was not a largely attended one what there was lacking in numbers, however, was balanced by the general interest and enthusiasm shown by those present.

Robert Williamson, of Greenwich, Conn., being called on to say a few words, during the course of his remarks said. "I am indeed glad to be here to meet with the gardeners of the west. I am somewhat disappointed that there are not more of our eastern members present, as we expected to have a larger body with us, but.

of course, we are rather young as an organization and on account of the distance being so great we must make allowance for so few of us here from a distance, but personally I am glad to have taken the trip to meet with the other gardeners here."

David F. Roy, of Marion, Mass., referring to President Everitt's message, stated, "I can quite understand why it is that he is not here. Men in our position, if they want to succeed, find that one of the first requisites is that they must cater to the wishes of their employers. I have been a gardener for a number of years and have often heard it stated, 'Well, you can only get so far and no further,' but I must say that I cannot always agree with that. My experience is that a man has a great deal to do with what he makes of himself; in other words, the tide will find its level. If it is in the man, he will get there."

L. P. Jensen, of St. Louis, Mo., in urging a campaign to increase the membership, remarked, "I am one of the newer members of the organization. This is the first opportunity I have had to be with this body of gardeners. I hope in the future I will be with you often. I came in as a member early this year. Previous to that time I had heard very little about our organization, and it seems to me that the gardeners throughout the country do not know enough about it. I think we need publicity. I think we ought to make a strong effort to have our members throughout the country get in new members. That is one thing that we should make a point of, and in that way in a short time we would have a strong representative body of men throughout the United States."

W. T. Lee, of San Francisco, Cal., speaking on increased membership remarked, "It seems to me that as we develop and get more members we should have local organizations if it can be done, to affiliate with the central body in some way, so that we could meet once in a while. Take this Coast, for instance, we could have a meeting of our own once in a while to work in conjunction with the central body, but still at the same time, as you men coming from the east will see, we are more or less isolated down here. It is a long way from here to the nearest large centers of population. I believe in that way it would create more interest.

"I understand that there are quite a number of members on the Coast, so brother Rennie tells me. I did not know that there were so many as he says there are."

A. Bischke, of Noroton, Conn., speaking on the pleasures of the trip and the future of the association, said, "I do not know how our other gardeners will feel when they find what we have seen and heard here. I know that they will greatly regret that they were not able to join our party and come here to the west. I must say that I am greatly surprised to see the strides that have been made by these great western cities; for instances, Minneapolis and Seattle. I thought that Seattle was a little bit of a town, perhaps like some of the suburbs of Chicago, but I found Seattle, although a very young city, is not an insignificant town such as I had supposed it was, but is a great big city, and we have nothing in our part of the country that will compare with the parks of Seattle.

"Then take Tacoma, with its giant trees, we have to take our hats off to those trees, lakes and boulevards. We have nothing like them in the east. I know that Messrs, Everitt and Ebel would have liked to have seen these things. There may never again be an opportunity in their lifetime to see what we have seen who are Who would take the bother to show a single man the things that we have been shown on this trip? Every park superintendent has been anxious to show us around and let us see the best that they had. I think we should strive to start a propaganda in each city and in each community to develop our association right now. It should not be a local society. It should be a national organization. The more members we can get in, the better, and scattered all over the United States. If we could get a great volume of men to work hand in hand it would be well. Our profession is a great one. What would a city like Minneapolis or New York, or any of the greater cities, be without their parks, or their gardens and trees? They would be a barren waste. So let every man here work for the betterment of the gardening profession and the development of our national association."

Mr. Jensen, resuming his remarks, referred to the situation as he found it in the city of St. Louis where, he stated, "the gardeners do not seem to pull together." Continuing he said, "We have some very efficient men as gardeners in the parks, in Shaw's garden, and connected with private estates; but they do not seem to come into relationship or contact with one another. It occurred to me a few months ago that some method might be devised to bring these men closer together. Of course, in societies of various kinds it generally falls to the lot of a few men to do really all the work,

so it occurred to me to call a meeting of the Superintendent of Parks of St. Louis, the Manager of Shaw's Botanical Garden, the man who has charge of the landscape work for the schools and a particularly efficient gardener who has charge of the ornamental planting for the parks. I called these men together at my home. and told them that my object was to try and form a little social organization; and on account of the difficulty of anyone entertaining a large gathering at their home. I suggested that we add to our number enough to make twelve members, and hold a meeting occasionally to have no formal organization, no officers of any kind, but that a paper be prepared on horticultural topics, and that after reading the paper we have a discussion on it. We have had two such meetings, and made a good start, and I think we are going to continue it. It seems to me that in some places it might be a good thing to hold such meetings and cultivate good fellowship. These meetings might be held once a month; and if this plan could be adopted quite generally, I think it would create greater efficiency

Vice-President Rennie responded that he quite agreed with Mr. Jensen that it was a good idea to get together once every month or three months, and come to some agreement together. He also favored the suggestion as to appointing vice-presidents in the different states and having branches in each state to stimulate these gatherings as

feeders for the main body.

Percy Ellings, of Menlo Park, Cal., secretary of the Menlo Park Horticultural Society, extended an invitation to the visiting gardeners to come to Menlo Park and he the guests of the society for a day, stating that they had made arrangements to take the gardeners all through the principal estates down on the Peninsula and afterward treat them to a good old-fashioned Spanish barbecue, which would be a novelty to the visiting gardeners.

Owing to some misunderstanding in the itinerary as to the date of departure the invitation could not be definitely acted on, but on motion by Mr. Wirth the invitation was accepted with a vote of

thanks to the Menlo Park Horticultural Society.

Theodore Wirth, of Minneapolis, Minn., being called on for a few remarks, replied, "I simply want to say this, that while I am a park superintendent now, I came to that position as a gardener, and I am proud to be a gardener and always have been proud of it and always will be. There are many possibilities in our profession. so many different ways to develop that it is certainly very important that we make more effort in the future than in the past to get together and enlarge the usefulness of the National Association of Gardeners. The only way that this can be done best in my opinion is through the formation of local organizations and having them represented by delegates sent by these local organizations to the national meetings wherever they may be held.

"You all know that very few of the gardeners are financially situated so that they can travel clear across the continent to attend these meetings. You also know that there are very few employers that realize the value of these meetings. They really do not know, chiefly because they are not informed as to what we are trying to do; consequently, there are very few of them who are willing to pay the expenses of their gardeners to attend here, although they might be willing to do so if they were properly informed of the value to the gardeners and to themselves of these meetings. will come when they will be willing, I believe, to help us along

these lines.

"Mr. Roy said that it depends upon the man himself as to how his profession shall be regarded. I quite agree with him. I think we can improve our situation and our relations as gardeners by showing that we are men as good as our employers. If you can prove that you are worthy of respect, you can receive it, and you will improve your situation and your relation with your employer a great deal."

Vice-President Rennie next called on Richard Vincent, Jr., of White Marsh, Md., referring to him as only a young boy, to which Mr. Vincent replied, "I am seventy-two years young, that's all. Now in regard to this matter before us, I am something like the boy who made his first trip out in the country, and saw a great big something there, he did not know what it was, and he looked around and inspected it on all sides. He said, that is a tarnation funny house, with no chimneys, doors, or windows to it. An old farmer that he met there said, 'That is no house,' 'Well, what is it?' 'A hay-stack.' The boy replied, 'I may be a greenhorn from the city. but you can't fool me that way. Hay don't come in humps like that.

"I may be a little green as to what the idea of this association is, but I think that the suggestion in regard to building up the organization is an excellent one. Every man who wants his organization to go ahead has to put a little energy into it. Now, in regard to the appointment of a number of Vice-Presidents, of course, you can do that, but what is the use of a large number of Vice-Presidents? They are likely to be simply dead timber, and instead of their stirring up membership for the society, nine times out of ten they will want more stirring up than the men that they are supposed to stir up.

"I know what a struggle it is to success. Remember I have a haby of my own to care for, The American Dahlia Society, which

has only been born within the last six or seven weeks, yet we are hustling all over this country for membership, and we are going to have it. We are going to show the world what Dahlias are. You gardeners have to carry your products somewhere to show the people what you have got. You have got to entice the people to go and see them. It is only by thorough work that you can make this organization what it ought to be. It is now in its infancy. but it can and will grow if you will only put your shoulders to the wheel and give it a little push up hill.

"I am sorry Mr. Ebel is not here, because he would give you a much better talk than I would. He wrote me and asked me to come here and just jog you up a little bit if it was in my power

"So I believe if you push this thing, you can not only keep up with it but get ahead of it. It needs push all of the time. if it is ever my privilege, if I live long enough to address this body again, that I will tell you something better than I have this afternoon.

Mr. Vincent was followed by some of the members of the Pacific Coast and their remarks indicated that they were thoroughly interested in the work that could be accomplished by an organization such as the National Association of Gardeners and that they could

be counted on to give their support and co-operation.

An invitation was received at this time from the American Association of Park Superintendents to have the members join the meeting of the park superintendents and to attend the illustrated lecture of Hon, Samuel E, Hill, President of the Pacific Highway Association on "Good Roads." At the suggestion of Vice-President Rennie and Mr. Wirth, the meeting adjourned to attend the lecture. It was intended to re-convene after the lecture, but owing to so many other attractions of the exposition city there was no re-convening and the meeting stood finally adjourned.

#### AMONG THE GARDENERS

The sympathy of the many gardening friends of George  $\Lambda$ . Breed, president of the Lenox Horticultural Society, are extended to him on the recent demise of his wife.

Richard Brett, for many years superintendent of the S. T. Peters Estate, Islip, L. I., has been forced to resign his position owing to ill health. Mr. Brett is now making his home at East Orange, N. J.

David Roy, superintendent of "The Moorings," Marion, Mass., and Mrs. Roy, who traveled with the park superintendents on the trip to San Francisco and return, say that it was a trip never to be forgotten by either of them and that western hospitality cannot be too highly praised.

Robert Williamson, superintendent of "Milbank," Greenwich, Conn., also a member of the park superintendent's party to the Pacific coast, intended to return by way of the Panama Canal. but changed his plans at San Francisco and returned east with Using his own words "they were such good company the party. that I could not part with them."

A, Bischke, superintendent of the Ziegler Estate, traveled with the park superintendents, but left the party at thicago on its return to join Mrs. Bischke and daughter there for a more extended vacation.

Oscar Karlson, superintendent of the Kingsley Estate, Riverdale, N. Y., another of the park superintendents' party reported on his arrival that the horticultural features at the San Diego Exposition must have proven a marvel to all who never before had an opportunity to see California's tropical plants. While the San Francisco Exposition has a fine horticultural display, he. however, stated that it is a more artificial one than the natural plantings to be seen at San Diego.

#### THE GARDENERS' CHRONICLE

IS A JOURNAL OF USEFUL TECHNICAL KNOWLEDGE FOR THE ADVANCED AMA-TEUR.

SUBSCRIPTION, ONE DOLLAR A YEAR.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

EMIL T. MISCHE, Portland, Ore.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### PARK SUPERINTENDENTS' CONVENTION.

The seventeenth Annual convention of the American Asso ciation of Park Superintendents was held in San Francisco. August 18 to 20, with an attendance of one hundred park execu-



tives from the larger stres of the United States and Canada The convention program provided one day of papers and discussions and two days of inspection tours of recreation facilities

of San Francisco, Oakland and Berkeley as well as the landscape teatures of the Panama Pacific Exposition and number of private estates adjacent to San Francisco. Practically the entire convention party toured the entire Pacific Coast, inspecting the recreation features at Spokane, Seattle, Tacoma, Portland, Los Angeles and San Diego, the eastern party, also stopping at Salt Lake City, Pueblo, Colorado Springs, Denver, Kansas City, St. Louis, Minneapolis, and Chicago,

The following officers were elected: President, Emil T. Mische, Portland, Oregon, Vice Presidents, J. W. Thompson, Seattle, John T. Walsh, New York: Alex. Stuart, Ottawa, Canada; E. P. Griffin, East St. Louis, III; E. B. Goebel, Grand Rapids; L. P. Jenson, St. Louis, Secretary-Treasurer, Roland Cotterill, Seattle. New Orleans was selected as the city for the 1916 convention, which will be held in October.

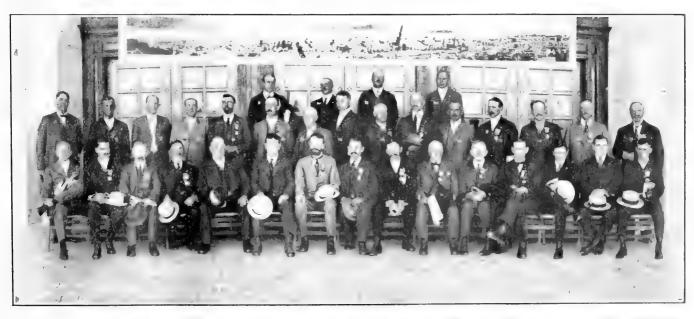
At the opening session, Wm. H. Metson, president of the San Francisco Park Board, delivered an address of welcome and outlined in a very interesting way the progress of park work in San Francisco, lauding the wonderful achievement of Supt. John McLaren in the creation and development of Golden Gate Park. Vice-President, H. W. Merkel, responded on behalf of the As-

sociation and described the trip across the continent by the eastern delegation, each city of the west and of the Pacific Coast being a revelation to the party and San Francisco with its exposition and wonderful Golden Gate Park being the climax.

The annual report of Secretary-Treasurer Roland Cotterill showed that during the year the indebtedness of the Association had been cleaned up, there was a small balance in the treasury and a membership in good standing of 191.

Twenty-four new members were admitted to the Association, a larger number than at any previous session, the applicants being as follows:

Henry W. Busa, Supt. of Parks, Detroit, Mich. Chas, W. Davis, Supt. of Parks, Memphis, Tenn. Wm. R. Reader, Supt. of Parks, Calgary, Can. Frank Shearer, Supt. of Parks, Los Angeles, Cal. J. G. Morley, Supt. of Parks, San Diego, Cal. W. C. Claybaugh, Supt. of Parks, Fresno, Cal. J. M. Paige, Supt. of Parks, Pomona, Cal. David F. Roy, Supt. of Parks, Marion, Mass J. O. Conville, Supt. of Parks, Portland, Ore. W. R. Hancock, Supt. of Parks, Fergus Falls, Minn. Albert Bieschke, Supt. of Parks, Noroton, Conn. John D. McEwen, Supt. of Parks, Queensboro N H. H. Elbers, Director Botanical Gardens, Buffalo, N. A. Jacob Umlauff, Head Florist, Scattle, Wash,



Sitting, Left ( Rig t - 3 D. McEwen, George C. et al. William R. Resland, C. . . Endle, J. W. Trengall, R. W. Gero dl. Herman W. Merrell, Carl Fohn, C. B. W. 3, John McLarer, Trol C. Geron, Mex. Street John I. Will, Walter Wingler.

Standing—E. P. Gruhn, J. M. Paige, John Meisenhacher, W. C. Claybangh, Mex. Fish, J. L. Walterd, Frink Borrolet, John Berry, Eugene Ground, George H. Hill, J. J. M. Sche, George Grote, L. P. Jensen, J. C. Lyle, J. Cahon, D. Larquistasen, Wm. Albert, F. Sherrer, J. G. Morley, J. F. Prost.

H. L. McGillis, Park Engineer, Scattle, Wash. W. R. Pierson, Supt. Cromwell Gardens, Cromwell, Conn. Wm. Allen, Secy. Park Commission, New Orleans, La. E. C. Lyle, Landscape Engineer, Bellingham, Wash. C. De Grelle, Landscape Architect, Montreal, Can. Jas. F. Dawson, Landscape Architect, Brookline, Mass.

Donald McLaren, Landscape Architect, San Francisco, Cal. Daniel Mac Rorie, Landscape Architect, San Francisco, Cal.

Ralph, T. Stevens, Prof. of L. G., Berkeley, Cal. W. T. Rementer, County Forester, Los Angeles, Cal.

During the course of the day and evening the following papers were read and were followed by interesting discussions. papers will be published in the official organ and will also be included in the printed proceedings of the convention.

"Are Charges for Certain Park Services Justified?" by Theo-

dore Wirth, Supt. of Parks, Minneapolis, Minn.

"The Drift of Modern Recreation," by E. B. De Groot, Director of Physical Education, San Francisco, Cal.

"Public Parks as Preservers of Native Plants," by L. P. Jen-

son, Supt. of Busch Gardens, St. Louis.

Stereopticon lectures were delivered by Samuel Hill, President of the Pacific Highway Association, his subject being "Good Roads"; and by J. H. Prost, City Forester of Chicago, on "Civic Beautification.

J. G. Morley, Supt. of Parks of San Diego, presented stereopticon views of the Panama California Exposition at San Diego.

Proposed amendments to the by-laws were given considerable attention, the following being the substance of changes made.

Specific classification of membership and definining qualifica-

tions along new lines.

Senior Membership: Persons of five years' practical experience as park superintendent, assistant, engineer, architect, forester or other executive.

Junior Members: Same as senior members, except having had less than five years' practical experience.

Associate Members: Park Commissioners or secretaries, land-

scape architects, foresters or other persons identified with horticulture or arboriculture.

Sustaining Members: Park Commissions or other governing bodies or individuals who may contribute to the support of the Association at \$10,00 per year, having no vote, but being entitled to the information, service and publications of the Association.

The president and secretary were authorized to enroll sustaining members at any time, all other applications to be submitted at the annual convention.

Power to set the date for holding the annual convention was

vested in the Executive committee.

Senior members, only, to be eligible to hold office, but junior members and associate members may serve on committees, vote on all matters and participate in conventions.

Provision made permitting nominations for office on the floor of the convention in addition to names submitted by nominating

Provision for suspension or expulsion of members for unprofessional conduct or conduct unbecoming a member.

Fixing admission fee for new members at \$10.00 which shall

also cover first year's dues.

Invitations for the 1916 convention were received from the following cities: Cincinnati, Columbus, Buffalo, Boston, St. Louis. Memphis and New Orleans, the last three named being accompanied by urgent invitations from the park authorities holding membership in the Association.

The Executive committee recommended the selection of New Orleans and it was so voted, the understanding being that the convention will be held during the last week of September or the first

week of October.

The election of officers resulted as follows: President, Emil T. Mische, of Portland, Ore., and Chas. G. Carpenter, of Milwaukee, were nominated, Mr. Mische being elected. John McLaren of San Francisco, was unanimously elected as Honorary President.

For Secretary-Treasurer, Roland Cotterill of Seattle was re-

elected by unanimous vote. Candidates for Vice-President were:

J. W. Thompson of Seattle; John F. Walsh, of New York; Alexander Stuart, of Ottawa; E. P. Griffin, of East St. Louis; L. P. Jensen, of St. Louis; Eugene V. Goebel, of Grand Rapids; D. H. Ellis, of Saginaw; C. L. Brock, of Houston; C. A. Bossen. of Minneapolis, G. W. Hess, of Washington; J. Meisenbacher, of Tulsa, and C. W. Davis, of Memphis. Messrs. Thompson, Walsh, Stuart, Griffin, Jensen and Goebel were elected.

The two days of sight-seeing and inspection tours were spent

most profitably.

On Thursday, August 19, the party crossed San Francisco Bay and became the guests of the Board of Park Directors of Oakland, luncheon being served at Mosswood Park, followed by an auto tour of Oakland and Berkeley.

On Friday, the 20th, an all-day auto tour was made of San

Francisco Peninsula, luncheon being served at Spring Valley. Practically the entire party remained in San Francisco until Tuesday, the 24th, visiting the Panama Pacific Exposition, then proceeding south to Los Angeles and San Diego, where a special program of entertainment was provided by the local park authorities.

#### CONVENTION TRIP OF PARK SUPERINTENDENTS.

The convention trip of the American Association of Park Super-intendents, which began at New York on August 7, was one of the most successful and enjoyable long distant trips ever undertaken by any member of the party, and some of them have traveled much. The party which returned to New York on September 6 was loud in its praises of the genuine hospitality which greeted it at every stopping point. Where special entertainment had been previously arranged the local committees had many sur-prises to offer to the visiting park superintendents and their friends; and at stopping points where it was believed nothing had been planned, delegations were on hand to meet the visitors to show them the sights of their cities. It was a trip long to be remembered by those who undertook it.

A. T. De La Mare, managing editor of the Florists' Exchange, who joined the party at Portland, has reviewed the trip as one of the most remarkable ever undertaken by any horticultural body, and that seldom, if ever, has so much ground been covered by any association in a practical way as in this trip, where full opportunity was extended by every city visited to note the provision made by it for public welfare and education through the medium of parks and playgrounds; and that the courtesies bestowed upon the visitors was spontaneous and extreme. There were no exceptions. He estimates that in the trip to the Pacific Coast and return the Eastern delegates covered nearly ten thousand miles in railroad travel, and were carried one thousand miles

The adventures of the trip from day to day are best described in the following excerpts from the diary of one of the ladies of the

party, Mrs. John D. McEwen:

in automobiles on park inspections.

SATULDAY, August 7. On Saturday morning seventeen of our party were nicely ensconced on the Chicago Limited that left the Pennsylvania station, New York, at 11.08 a. m. It took but a short time to become acquainted with Mr. Herman Merkel, first vice-president of the association, Miss Una E. Keith, of Bridgeport, Conn., the only honorary member in the party, her father having been one of the charter members of the association and the rest of the party, consisting of John D. McEwan and wife, Queens, N. Y.; David F. Roy and wife, Marion, Mass.; A. Bieschke and wife, Noroton, Conn.; William H. Coldwell, Newburgh, N. Y.; John F. Walsh, New York, N. Y.; Fred Green, Providence, R. L.; Oscar Karlson, Riverdale, N. Y.; Wallace R. Pierson, Cromwell, Conn.: Robert Williamson, Greenwich, Conn.: Charles Haible, Newburgh, N. Y.; E. W. Schoneberger, Madison, N. J.; Oscar Boehler, Hoboken, N. J. Charles B. Forbes, New Bedford, Mass. The first day of our trip was a delightful one and the Pennsylvania scenery was found to be at its best. Northing occurred the first day of event to record.

SUNDAY, August S. We arrived at Chicago at nine a. m. The day was a most beautiful one and we were met on the arrival of the train by a big delegation well provided with automobiles and toured the city and parks until noon when we were entertained at the Lincoln Park restaurant at luncheon. Each auto was provided with a blue pennant bearing the words "Park Superintendents," and the procession was escorted by four motorcycle police-

We soon found that the entertainment committee, consisting of the following park department officials of Chicago: Frank Foster, chairman; Edwin L. Kanst, J. H. Prost, Albert Mohr and Harry S. Richards, had planned an interesting program for our visit

to their city.

After luncheon we were taken on an inspection trip of the parks. We first visited Grant Park on the lake front; then to the Municipal Pier, which cost over four million dollars; thence to the Clarendon Bathing Beach, the largest in the west. Continuing our drive over the boulevards we next visited the West Park System: Humboldt Park with its beautiful perennial and rose gardens; Garfield Park with its greenhouses, conservatory and mall; Douglas Park with its formal garden; then to the South Parks which comprise McKinley, Gage and Sherman Parks, also the playgrounds and swimming pools. Next in line came Washington Park with its long meadow and conservatory, and then over the Midway to Jackson Park. This completed a sixty-mile tour over the wonderful park system of the City of Chicago.

At 6.50 p. m. we left Chicago over the Chicago, Milwaukee and St. Paul for Minneapolis and were joined on the train by Harry W. Busch, wife and daughter, Detroit, Mich.; Alexander Stuart and Miss May Stuart, Ottawa, Canada: J. H. Prost and Walter

Wright, Chicago.

Monday, August 9.- We arrived on time at Minneapolis where amother ideal day greeted us. We were conveyed from the train to the Elks' Club House in autos, which awaited us, where we were received in the reception room and then escorted to the breakfast room where a bounteous breakfast awaited us, the mayor of the city gracing the head of the table.

We were informed that the entertainment committee consisting of Commissioner Joseph Allen, W. H. Bovey, W. F. Decker, Harry B. Cramer and E. J. Phelps had planned an active day for us Again entering the autos and after a tour of the city, headed by four motorcycle policemen, we proceeded to the parks and there witnessed the workings of the mammoth dredges on the lakes. Our next point of interest was the swimming pool where we witnessed an exhibition of life saving and restoration by the lung pulmotor. Opportunity was given to the members of the party who desired to do so to take a dip in beautiful Lake Calhoun, after which we motored to the other side of the lake to the Minikahda Club House. where luncheon was served. After several impromptu speeches by members of the party we boarded the naphtha launches, which awaited us, for a ride on the lakes. The beauties of the Minneapolis Park lakes will never be forgotten by any of us.

On the opposite shore autos met us and we motored past the beautiful homes of Minneapolis until we reached Minnehaha Falls. The view of these falls and the surrounding park defies description. Minnehaha, or Laughing Water, is symbolical of the falls. One must pass over the artistic stone bridge and in and out the many little walks of the glen to fully appreciate this spot.

The Refectory was our next stop, where we were entertained at dinner. The menu was an excellent one and the hospitality shown us by some of the prominent citizens who joined us here was most genuine. We were welcomed by P. C. Deming, President of the Minneapolis Park Board, and also addressed by Thomas Voegeli, Ex-President of the Board; C. M. Loring (father of the Minneapolis park system), and Theodore Wirth, Superintendent of Parks. Herman W. Merkel and Wallace R. Pierson responded for the visitors.

At the conclusion of the speech making we were taken by the autos to Harriet Park where a special program had been provided in honor of the visit of the American Association of Park Superintendents and the National Association of Gardeners by the Minneapolis Municipal Bank. The numbers of the program included:

..... William S. Manning

Gustave X. Amruha . . . . John W. Ereritt

Entr'acte, "Rose Housse"..... Two Dances, In the Precise Style, sharply punctuated

Boston Patrol, "We Won't Go Home Till Morning", James B. Shea

From Harriet Park we returned to the city, stopping at the Kaiser Hof where we included in more refreshments and speeches, concluding with "Auld Lang Syne," Escorted to the depot by the commissioners and their wives amid a rousing cheer by our party for Minneapolis and its hospitable citizens our train bulled out at 11 p. m.

At Minneapolis we were joined by Theodore Wirth and wife and Frank Staley of that city; Emmet P. Griffen, East St. Louis, Ill.: L. P. Jensen, St. Louis, Mo.; Conrad B. Wolf, Hibbing, Minn.; George Champion, Winnipeg, Canada, and John Meisenbacher, Tuka, Okla.

Tuesday, August 10 - This was a day for rest, our previous day having been a most strennous one. We were now traveling on the Great Northern and our entire day was almost taken up in passing through North Dakota. Late in the afternoon we reached Williston where we stopped for four hours, due to a train wreck ahead, and had an opportunity to visit the town which appeared to be a prosperous one. Leaving Williston that evening we proceeded only about twenty miles when we were held up all night at a little town called Snowden. We departed from here at 11:30 a. m. on Wednesday.

Wednesday, August 11. We viewed the wreck as we passed and it was an awful sight eighteen cars all badly twisted out of shape. God was with us as we were behind the wrecked train which might have been our fate. We were delayed nineteen hours in all, but every one took it good naturedly as we were a goodnatured party.

North Dakota is a "dry" State, and when we crossed the border into Montana there was a stampede for the diner-Oh! just for a lemon soda!

For several hours our path lay through the Indian Reservation and wagons with many Indians and plenty of dogs were seen on the trail. A short stop at Wolf Point was made where we were greeted by a large number of Indians at the station. Next we approached an Indian village and there were many houses but the country is as desolate to look at as North Dakota. Funny little dugouts in low hills with sod and straw roofs and small shacks with single door and window were seen here and there. Miles and miles or flat, dry looking land were traversed with scarcely a tree visible.

At six o'clock we struck the bad lands of Montana and viewed the Milk River Irrigation Project conducted by the United States Government. Stopped at Hinsdale and Saco, Montana.

Miss Stuart and Mr. Ewen arranged a concert for the evening. with the observation car for an auditorium where a splendid program was rendered.

Thersbyy, August 12 We arrived at Glacier National Park at 8 a. m. Had breakfast at the hotel a most wonderful structure imaginable, made of immense trees (unpecled, Douglas Fir). The decorations were hangings of animal skins and mounted elks heads. The waitresses were attired as Swiss peasants, while entertainment was furnished by a stringed orchestra and several Indians with their weird music. Extensive verandas, immense sun parlors, writing rooms, shower baths and every other possible convenience to satisfy the most fastidious taste were found here.

On leaving the hotel for the thirty-two mile auto trip through Blackfoot Reservation, via St. Mary's trail, old Chief Three Bears shook hands and wished us Godspeed in true Indian fashion. Glacier National Park was at one time included in the Blackfoot Reservation in western Montana and is a part of the Rocky Mountain Range. It is sixty miles in length, with an altitude of four thousand five hundred feet in the valley and ten thousand four hundred and thirty-eight feet on the mountain top. The highest point reached on the trail was six thousand two hundred and fifty feet.

A beautiful day and clear atmosphere made all the mountains visible, Mt. Bison, Red Mountain, White Peak with its snow cap extending quarter way down its side, Divide Mountain, Calf Mountain, Twin Buttes, Mt. James and Mt. Pioneer, the great amphitheater, and Red Eagle created in the mind of the observer a feeling of awe inspired admiration. Two Medicine River and lake, Cutbank River, Cripple and Triple Divides were passed in turn and Milk River with its tumbling, roaring currents leaping down the mountain side. The drive in many places skirts the precipice with a sheer fall of hundreds of feet and is only wide enough for one auto. For a distance of eight miles the trail leads through a deep and dense forest of pine trees, the tops of which seem to almost penetrate the heavens. On each side of the roadway for miles there are to be seen a remarkable variety of wild flowers. Blue Bells, Lupines, Hardy Asters, Wild Geraniums, Potentillas and many others in a most glorious array of color and wonderful

Two hours auto ride brought us up to the Chalet St. Mary where we boarded the steamer St. Mary for a ten-mile sail up the lake to Camp "Going-to-the-Sun," where luncheon was served. The waters of the lake are a most beautiful turquoise blue, and great numbers of Mackinaw trout ten and twelve inches long were seen swimming at a depth of twenty feet. The lake is four hundred feet deep in places and at an altitude of 4,500 feet. During the trip two bands of Indians were passed along the shore with wagons and pack horses, and squaws and papooses on horse back. At another place was seen a mountain guide with his boy winding up the mountain trail to some distant camp. Clouds had partly covered the sun, casting shadows on the mountains, causing the waters of the lake to take on innumerable shades. At two o'clock the steamer started back for the St. Mary Chalet.

As the autos were being loaded for the return trip down the trail, the brake on the leading auto had not been properly set and as the last person was seated (the chauffeur was turning in his tickets to the starter), a scream was heard and shouts from the men calling attention to the fact that the brake had been released and the auto was plunging down a thirty-degree incline on the lakeside where the precipice dropped a distance of fifty feet. A sigh of relief went up when it was seen that the chauffeur had reached the wheel.

Arriving back at the hotel the party separated the men to the natatorium and the women to the rest rooms. We had dinner at six o'clock, after which we were entertained by the Indians and their squaws while the stringed orchestra rendered delightful selections of classic and popular music.

At 8:15 we boarded our special cars to continue our journey through the Rockies.

(To be continued in our next issue).

Wallace R. Pierson, who traveled with the members of the American Association of Park Superintendents as far as San Francisco, and on his arrival at that city had to enter the hospital to undergo an operation for appendicitis, has, we are glad to report, fully recovered. Mr. Pierson while convalescing at the hospital wrote to an eastern friend that he was having the time of his life and never enjoyed himself more, all due to the warm friendship and hospitality of California's horticulturists.

## Recreation Work Problems of Park Boards\*

By Theodore Wirth, Minnesota

The recreation work which park administrations of today are conducting, has brought with it a number of problems, which, for many, and probably all of us, are difficult to solve. To bring about the acquisition of lands for desirable park play grounds and their improvement and equipment, seems comparatively easy compared with the question of securing the necessary means for their proper and efficient maintenance, in order to meet the constantly stimulated and ever increasing demand for all kinds of service.

To make our park possessions the recreation grounds of our people, in the fullest sense of the word, is the aim of all progressive park administrations of today. The public deriving the benefit from parks and play grounds, generally speaking, is willing to pay for the cost of the acquisition, improvement and maintenance.

Recreation, if I understand the meaning of the word, means many things. It means the refreshment of strength and spirit after toil in the pursuit of our daily vocations. It means diversion, amusement and exercise of one kind or another. It means rest, relief, relaxation, regeneration. Recreation to some of us is one thing; to others it is something else; and we park builders and supervisors have it within our power to provide it all. It is our duty to see that we do not willingly, or even unknowingly, discriminate in favor of one to the detriment of the other.

We all know that the playground movement, as most of us call it, has made tremendous progress in the last ten years; and I have often felt of late, that, in our aim and zeal to satisfy the demands of the people, and our own ambition to lead, we are possibly over-reaching in some instances the real needs in that direction, and may be using for these purposes an unfair proportion of the limited means at our disposal to the neglect of other things perhaps fully as important. We are apt to overdo some special features and lose sight of others equally deserving of merit. Let us not forget that exercise and play are only a part of the recreation programme, which the laws of nature have mapped out for us to follow.

I am, and always have been, a strong advocate of making public parks the free recreation grounds of the people with as few restrictions as possible. I mean all the people. Parks are for rest as well as exercise. By all means let us provide for our children to the fullest extent within reason, but in doing so, we must not overlook the needs and rights of the fathers and mothers and other grown-ups who are still among us, and whose recreation calls for rest rather than exercise.

On account of insufficient funds, it is impossible for most of our park administrations to meet all the demands of the public for the numerous recreation activities. There is almost no limit to the service that could be rendered if the necessary means were always available. Admitting that all service demanded is at least desirable, let us ask ourselves the question—Is it feasible and justifiable that the cost of all such service be covered by a general tax. Undoubtedly there is a diversity of opinion on this question amongst us, and to bring the subject up for discussion, I express my opinion that to tax the entire cost of all service rendered against the general taxpayer is as unfair as it is unnecessary. I present three main reasons for this contention.

First-A large percentage of the taxpayers cannot

of the facilities offered and provided, and consequently do not derive the full benefit to which they are entitled. Second—I believe it to be an unwise policy to foster

and do not, for one reason or another, make use of all

Second—I believe it to be an unwise policy to foster to the extreme the idea of the free use of all facilities that may be offered. To give everything free will result to a great degree in the careless and reckless use of such privileges and will lessen the appreciation and value of the service rendered.

Third—The users of certain facilities can well afford to pay a small fee, and so help to maintain the service from which they receive special benefits.

I believe it is possible to draw a line between what we may call general service and special service in our recreation work.

Under general service, I class all constructive work necessary to provide the facilities, namely, the acquisition of grounds; their improvement and equipment, so they may answer the purpose for which they have been acquired.

This general service must also include the regular maintenance work necessary to keep such grounds in serviceable condition.

We have, therefore, under this form of service, provided for all such things as lawns, plantings, flower beds, roadways, walks, bridges, benches, tables, lights, drinking fountains, shelters, buildings of all kinds, play grounds, and their apparatus, etc., and we maintain them in serviceable condition.

Under special service, I place certain accommodations and facilities, which I believe should not be furnished gratis, and for which a nominal charge should be made. They are as fallows:

Bathing Service—The use of the bath-house accommodations should be free, but a nominal charge should be made for the use of bathing suits, caps, towels, and such incidentals supplied by the department. Those who bring their own suits and towels have, therefore, absolute free service.

Boating Service—The lakes and rivers under the jurisdiction of Park authorities are, of course, the same as a highway. Any one can put his boat on the water and use the same in compliance with existing rules. Charges, however, should be made for the season for the use of platforms, racks, and lockers built for the landing and storage of private boats and other equipment, and for their special police protection. Boats and launches let out by the department, should, of course, be rented at a nominal price per hour, or trip.

Tennis Court Service—Where there are a number of courts together, I believe it would be well to furnish the nets and charge a nominal fee for the use of same per hour. This would not only help to maintain the courts, but would also facilitate the enforcement of the rules and protect the rights of all comers to get the use of them.

Skating and Toboggan Service—The renting out of skates and toboggans to the public is an accommodation well worth a nominal fee from those who use them.

Locker Accommodations at Golf Links, Gymnasiums, etc., by the Season—An appropriate charge for such accommodations, which are similar to those rendered at a private club, is, I believe, entirely justifiable. It is a question, however, in my mind, whether

(Continued on page 423.)

Paper read before American Association of Park Superintendents' con vention, San Francisco, Cal.

## Our Native Birds' Protectorate

Under the Direction of the Committees on Bird Preservation and Propagation.
National Association of Gardeners, L. H. Jensen, St. Louis, Mo., Chairman.
American Association of Park Superintendents, Hermann Merkel, New York, Chairman.

#### COMMITTEE MEETING AT SAN FRANCISCO.

At a joint meeting of the committees of Bird Preservation and Propagation of the National Association of Gardeners and the American Association of Park Superintendents, held in San Francisco on August 19, 1915, it was decided to help in the preservation and propagation of insectivorous and other desirable birds in private and public parks, and with this end in view, to, first: encourage the erection of nesting boxes, feeding and bathing appliances; second: the planting of berry bearing trees and shrubs, useful as bird food; third: the co-operation with Audubon Societies and others working towards the preservation and propagation of useful birds, and recommend that park boards and others join the National Association of Audubon Societies. We recommend that the work of this kind in public parks be carried out under the supervision of the park boards of the various cities and towns, and that superintendents be called upon to bring this matter to the attention of their respective L. P. Jensen, Chairman, boards.

National Association of Gardeners.
H. W. MERKEL, Chairman,
American Association of Park Superintendents.

#### HOW TO PROTECT OUR BIRDS.

By Hermann Merkel, New York.

When asked what methods should be pursued for the protection and encouragement of the birds in public parks, my answer has always been:

First.—Kill the cats. Every cat is a potential enemy to bird life. Even the most pampered pet of some household will hunt birds when it has a chance, and while the application of a gaudy ribbon and a bell will prevent the cats from preying upon adult birds, young fledglings and nestlings are still at their mercy. The best method for eradicating cats in public or private parks is to supply some good shot among the employees with a .22 rifle, a Maxim silencer, and plenty of ammunition. Let him prowl around early in the morning and evening, and if his heart is in his work, there will be a great deal less music on the back fences in the neighborhood of that particular park in a surprisingly short time. Often cats become so wary that they cannot be reached with a .22 calibre rifle, and since it is not safe to use a high power rifle, in most of these parks, traps must be resorted to. A box trap baited with fish will usually do the business.

Second.—Supply nesting sites by means of bird houses, and by leaving a few partially dead trees in the wilder portions of the park.

Third.—Feed the birds! Under the conditions usually found in city parks there will be times when insectivorous as well as seed eating birds will suffer for food, and migrate unless artificially supplied. Enough has been written by Audubon societies, and the Biological Survey, and others, about nesting and bird feeding places, to make it unnecessary for me to go into the subject thoroughly, but I may state that for winter feeding we use a simple wire basket into which suet is dropped, and a small platform

upon which is placed a fuxture of wild seeds which we are able to purchase very cheaply.

Protection Against Gunners.—In or near every large city, there are settlements which contain bird hunters (we have found the Italians to be the worst offenders). To these people all birds are food. We have caught them with such birds as the yellow-billed cuckoo, blue-jay, catbird, robin, warblers and finches. These hunters must be prosecuted to the fullest extent of the law, and if the magistrates will not punish them, they must be made to do so, by enlisting public opinion. A few convictions under the Federal Song Bird Law, which provides a fine of \$25 for each bird found, will soon get noised about, and will stop the hunting, and just a few determined men can bring this about.

There are a number of ways by which sentiment in favor of bird protection may be created and fostered Among those tried and found good, may be mentioned lectures on birds in the schools and elsewhere, descriptive and news articles in the daily papers, competitive bird house building by school children, the winner to be given small prizes, etc., etc.

Let each superintendent of a private or public park communicate with the nearest Audubon society and promise his co-operation. Get his school board to encourage nature studies, and help teachers and others with information and specimens, such as old bird nests, etc. Let each of us follow the above directions, and such others as more able advisors can give us, and we will give a new impetus to this good work, and be amply rewarded by the birds themselves, in song, and in tree protection against insects.

#### THE BIRDS IN COURT.

Every lover of birds awaits with great interest the appearance of their representatives before the U. S. Supreme Court next October. Our readers will remember the universal rejoicing that followed the passage of the migratory bird law two years ago. By this act of Federal legislation our migratory birds passed under the protection of the national government. The claim was made, and justly, it seems to us, that migratory birds belong to no single State, and can not be destroyed by hunters even if an individual State so wills it.

A hunter in Arkansas defied the Federal law, and the courts of Arkansas sustained his contention on the ground that the law was unconstitutional. An appeal has been taken to the Supreme Court at Washington. The case will be heard in October, when the Attorney General of the United States will appear for the birds.

We are informed that up to the present the law has been very generally observed; that in many sections it has stopped certain kinds of shooting altogether. Its opponents are those hunters whose desire for "sport," or whose profits from their trade, have been interfered with. It is certain that during this present year many of us have observed a large increase in the number of several varieties of migratory birds. May a gracious Providence incline the minds of the nation's most distinguished judges to give the birds every possible chance as against the hunters! Our Dumb Animals.

#### PREPARING FOR 1916 SPRING SHOWS.

Philadelphia is preparing for its National Flower Show, which is to be held in that city March 25 to April 2, next. The Flower Show Publicity Committee, which consists of some of Philadelphia's leading florists and a number of editors of the local newspapers, is actively en-

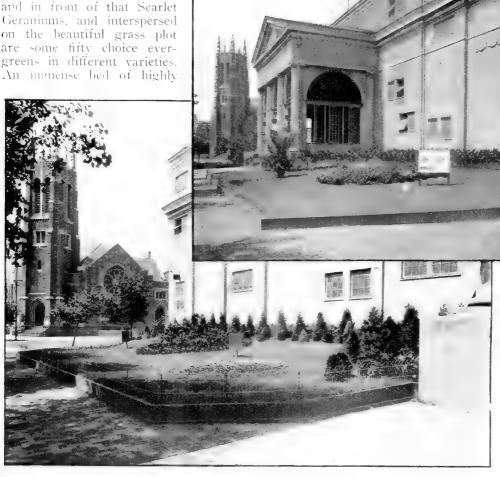
the grounds in front of Convention Hall, where the show will be held, which is already attracting considerable public attention. The Dreer garden and lawn in front of the hall are planted next to the building, with a large irregular border, the rear being planted with Canna Louis Reverchon, and in front with Canna Gustay Gumpper, the entire bed being bordered with Pennisetum Ryeppelianum. Two large oval beds contain Dreer's Single Fringed Petunias.

gaged in exploiting the show. Two of the leading seed firms of the city have planted

Michell's planting consists of the Canna Richard Wallace, distributed along the wall of the building. In front is a planting of Scarlet Sage and in front of that Scarlet Geraniums, and interspersed on the beautiful grass plot are some fifty choice evergreens in different varieties.

will be issued in a few days and which will contain some classes in the nature of novelty displays never before attempted at a flower show in this country, and which should arouse great public interest towards the show when its doors are opened. Considerable trade space has already been disposed of, and the general interest that is manifested in the annual New York Show indicates that it has become a fixed event.

Boston will hold its annual Spring Flower Show during the month of May next year, so that it will not conflict with the large shows in the other cities. Its preliminary schedule has been issued and some tempting premiums are being offered in it for display classes. By setting its date back so that it will not occur at the same time as the Philadelphia and New York, the Massachusetts Horticultural Society should secure outside interest



HALL WHERE PHILADELPHIA NATIONAL FLOWER SHOW WILL BE HELD IN 1915 Showing the planting plot of H. A. Door, Inc., in upper picture, Henry F. Michell & Co.'s in Lover picture

colored Crotons of choicest varieties, pyramidal in effect, covers the centre of the plot. Around the outside of the Crotons are planted Achyranthes Brilliantissima.

New York will hold its annual Spring Flower Show, following immediately after the National Flower Show in Philadelphia. It will be held under the auspices of the Horticultural Society of New York and the New York Florists' Club. The Exhibition Committee is busily engaged in preparing the preliminary schedule, which

in its show, which it may otherwise not obtain.

#### THE CLEVELAND FALL FLOWER SHOW.

The announcement from the Cleveland Flower Show Committee states that they will have important meetings to be held in connection with their show, and they list them as follows:

The annual meeting and fall exhibition of Chrysanthemum Society of America.

The fall exhibition and fall meeting of American Rose Society.

The executive committee

meeting of American Carnation Society

An adjourned meeting of the Florists' Telegraph Delivery Association. Also an adjourned meeting of the Ohio Gladiolus So-

Indications from every large center are that a large number are planning to be in the Sixth City for this big show.

The florists who have traveled, and traveling representatives of leading commercial houses have reported

that the Cleveland Flower Show is being talked of everywhere by every one.

This no doubt is due to the fact that the "live publicity committee" in charge of the Cleveland Flower Show, has been on "the job" continuously, early and late, using novel methods to bring their show before the attention of those who will be interested, and who in turn will interest others.

The final premium list will be ready for mailing about September 10. A number of new classes have been added, including additional prizes, making it especially interesting to both private and commercial growers.

We understand plans are being formulated to organize special train parties, to start from New York, also Boston and Philadelphia, as well as cities in the West.

The full details pertaining to these "personally conducted parties" will be published in the October issue of THE GARDENERS' CHRONICLE.

The one hundred and thirty-five prominent ladies who compose the membership of the Cleveland Garden Club, are represented on the flower show committee by three enthusiastic members, Mrs. L. Dean Holden, Mrs. A. S. Ingalls, and Mrs. John E. Newell. These ladies are planning to develop the Cleveland show into as important a social event for northern Ohio, as the "horse shows" used to be when held ten to fifteen years ago.

An invitation is extended by the Cleveland Garden Club to the members of all garden clubs to attend the flower show.

The final premium list will be mailed, upon request, by addressing Mr. F. A. Friedley, secretary, 356 Leader building, Cleveland, Ohio.

#### THE NEWPORT SUMMER SHOW.

The Flower Show at Newport, R. I., August 12-14, held under the auspices of the Newport Garden Club and the Newport Horticultural Society, showed such a marked advance upon the show of last year that its promoters should feel highly encouraged. The desirability of holding an open-air summer show at some central or easily accessible place is manifest, and it would seem that Newport, with its many gardens planned and planted for the summer season, is the best place to hold such a show. It has the opportunity, the facility and the material, and if the owners of gardens and the gardeners outside of, but not far removed from Newport, can only be interested and induced to support the summer show idea there is no question the show could in scope and perfection be brought to compare with some of the great summer shows in Europe which we talk about but make little effort to emulate.

The private exhibits at the recent show were almost entirely from Newport gardens, with a few exceptions only, as for example, the Campanula pyramidalis from Mrs. Nathaniel Thayer, of Lancaster, Mass., and the fruit from F. E. Lewis, of Ridgefield, Conn. Even Newport is not yet a unit in helping along the summer show. It is hoped, and most certainly to be desired, after the recent demonstration of what can be done with a few owners supporting and gardeners exhibiting, that Newport will do all that it is capable of doing, and then with outside competition a show would result of such magnitude as we have never yet seen in this country.

A few outstanding features of the show among the private growers were the group of flowering and foliage plants arranged by James Bond, gardener to Mr. H. Mortimer Brooks, and which was awarded, in addition to first prize in its class, a silver cup, as the best exhibit in the show from a private gardener. Moreover, it was not the variety of the material that made its strong appeal in this group, but the combination and graceful arrangements of a few things in which the dominant note was yellow Calceolaria and blue Trachelium. In a display of stove plants, Mr. Bond again put up an admirable winning group in which Pancratium fragrans and Streptocarpus were the special features. In Crotons, too, where Mr. Bond was again first, one could but note how skillful arrangement must have been a strong determining factor in the final judgment.

From the Vincent Astor estate, where Mr. James Boyd is gardener, plants in variety showing high cultural skill were exhibited, but conventional methods of arrangements disguised rather than displayed the quality of these exhibits. Cattleya gigas shown by William McGillivray, gardener to Mrs. Stuart Duncan, were exceptionally good, and the group of Gesneras from James Watt, gardener to Mrs. W. G. Weld, was an uncommon and attractive feature.

The winning display of Gladiolus from B. Hammond Tracy, of Wenham, Mass., was a magnificent representation of this flower.

Among trade exhibits the special feature was a bed of coniferous evergreens covering two hundred square feet. There were four entries, these effectively massed along the side and in front of the main tent. Oscar Schulton, of Newport, won the coveted award, and to this group was also awarded a silver cup for the best trade exhibit in the show.

For the success of the show credit belongs to Arthur Herrington, who proved an able manager, and his committee of active workers: Wm. Gray, James Bond, Wm. McKay, John Urquhart and Andrew Dorward.

#### NEWPORT GARDEN CLUB AWARDS.

Best 12 specimen plants of Geraniums James Boyd, gardener to Vincent Astor, first; Daniel Hay, gardener to Mrs. French Vander H. Second. Best her

bed of Geraniums in space of 50 square teet Daniel Hay,

Best bed of Geraniums in space of 50 square teet Daniel Hay, hrst; James Boyd, second.

Best two tubs of Hydrangeas—Newport Nursery, first; Dennis Foley, gardener to Mrs. James N. Haggin, second; William McGillioray, gardener to Mrs. Stuart Duncan, third.

Best display of stove plants, both flowering and foliage James Bond, gardener to Mrs. H. Mortimer Brooks, first.

Lest six vases of outdoor flowers tastefully arranged for adornment of drawing room—William Allan, gardener to Mrs. George D. Widener, first; William MacKay, gardener to H. A. C. Taylor, second.

Best bed of Conifera on a space of 200 square feet; arrangement to count 50 per cent.—Oscar Schultz, first

Best bed of Tuberrous Begonias in a bed of 50 square feet. James Watt, gardener to Mrs. W. G. Weld, first.

Best 6 pots of Campanula Pyramidalis—James Campbell, gardener to Mrs. Nathaniel Thayer, South Lancaster, Mass first; James Bond, second.

Best 6 pots of Campanula Pyranidalis James Campbell, gardener to Mrs. Nathani-I Thaver, South Lancaster, Mass first; James Bond, second.

Best 12 plants of Gloxinias; ferns may be used in arranging -William Allan, first; James Watt, second.

Best bed of Crotons in a space of 100 square teet Jam's Bond, inst; James Boyd, second

Best 3 vases Gladiolus, 3 varieties, 12 spikes each John Mahan, gardener to Mrs. Hugh D. Anchineloss, first.

Bost vase white—Daniel Hay, first; Arthur E. Griffin, gardener to Galen Stone, Marion, Mass, second.

Best vase real William Allan, first; Arthur E. Griffin, second, Best vase pink William Allan, first; Arthur E. Griffin, second, ardener to Mrs. Thomas J. Emery, first; John B. Urquhart, gardener to Governor R. L. Beckman, second.

Best bed or collection of yellow flowers, not less than eight varieties, blooming in Angust Arthur E. Griffin, first; John Mahan, second, Best collection of blue and purple flowers blooming in August —William MacGillioray, first; Arthur E. Griffin, second; James Robertson gardener to Mrs. T. O. Richardson, third.

Pest collection of pink and crimson flowers blooming in August William MacGillioray, first; Arthur E. Griffin, second; James Robertson gardener to Mrs. T. O. Richardson, third.

Pest collection of pink and crimson flowers blooming in August William MacGillioray, first; Arthur E. Griffin, second Best display of named varieties of roses blooming in August John B. Urquhart, first.

Best exhibit of Calceolaries—James Boyd, first.

NEWPORT HORTICULTURAL SOCIETY AWARDS.

### NEWPORT HORTICULTURAL SOCIETY AWARDS.

NEWPORT HORTICULTURAL SOCIETY AWARDS.

Best group of palms, ferns foliage and flowering plants tastefully arranged in space of 100 square feet, 50 per cent, for originality. James Bond, first.

Best six plants for pots not exceeding 12 inches, to be shown in iardinieres suitable for house decoration—James Robertson, first; James Boyd, second; James Bond, third,

Best six plants of Caladiums in pots or pans not exceeding 8 inches in diameter. James Bond, first; William MacKay, second.

Best specimen Kentia in a pot or tub not exceeding 12 Inches in diameter. James Boyd, first; James Bond, second.

Best specimen palm any specie without restrictions as to size of pot or tub. James. Robertson, first; James Boyd, second; James Bond, third.

Best specimen Adiantum Farlevense or Farleyanes.

ming. Best specimen Adiantum Farleyense or Farleyense Gloriosa—John B. Urquhart, first; William MacKay, second.

Best specimen fern other than Adiantum Farleyense or Farleyense Gloriosa James Boyd, first; James Bond, second; John B. Urquhart,

third.

Best 8 variegated joliage plants in pots not to exceed 8 inches in diameter James Boyd, first; James Bond, second.

Best basket, pan or dish of Adiantum Farleyense, receptacle not to exceed 15 inches in diameter. John B. Urquhart, first; William Mac-Kay, second.

Kay, second.

Best basket, pan or dish of ferns other than Adiantum Farleyense, receptacle not to exceed 15 inches in diameter—John B. Urquhart, first; James Bond, second; William MacKay, third.

Best basket, pan or dish of foliage plants, receptacle not to exceed 15 inches in diameter James Bond, first; William MacKay, second; James Boyd, third.

Best 25 Gardenia blooms—John B. Urquhart, first; James Boyd, second; William MacKay, third.

Best 25 American Beauty roses John B. Urquhart, first;

Best vase of 25 Tea or Hybrid Tea roses, outdoor grown—John B. Urquhart, first; Andrew Ramsay, second.

Best vase of 25 Tea or Hybrid Tea roses, indoor grown Arthur E. Griffin, first.

Best vase of Griffin, first.

Egriffin, first.

Best centerpiece -James Robertson, first; William Allan, second; Andrew Ramsay, third.

Best fancy basket William Allan, first; David Boyd, second; Andrew Ramsay, third.

Best display of Dahlias—J. K. Alexander, first; James Robertson, second; W. D. Hathaway, third.

Best display of Dahlias, six varieties -James Robertson, first.

Best table decoration of any material such as plants, flowers or fruit, with which the exhibitor may use silver, glass or table ornaments. Floral decoration to count 50 per cent, and to be made and arranged in the hall by the exhibitor. Table to seat not more than twelve—Gibson Bros., first; Joseph Lickens, second; David Boyd, third.

Best 24 plants Gloxinias—James Watt, first; Oscar Schultz, second. The Garden Club Sweepstake Cup for the best exhibit in the show was awarded to Oscar Schultz for a well arranged bed of Coniferae. The Mrs. French Vanderbilt Cup for the best exhibit by a private gardener was awarded to James Bond for his group of flowering plants.

William Trickey of Arlington N. L. was awarded a silver model. Second William Trickey of Arlington N. L. was awarded a silver model.

plants.
William Tricker, of Arlington, N. J., was awarded a silver medal for new water Illies. John P. Rooney, of New Bedford, Mass., bronze medal for Dahlia Mrs. Frederick Grinnell. Gratuities were awarded quite a number of other special exhibits of merit.

The judges were William Anderson and Joseph Clarke, of South Lancaster, Mass.; William N. Craig. Brookline, Mass.; John Greatorex, Victor May and John T. Allan, of Newport.

#### THE AMERICAN GLADIOLI SOCIETY SHOW.

The sixth exhibition of the American Gladioli Society Show, which was held at the Casino, Newport, R. I., under the auspices of the Newport Garden Association and the Newport Horticultural Society, was said to be one of the finest shows of Gladioli ever staged in this country. The Casino Theatre was a grand sight looking down from the balcony. The Chas. F. Fairbanks exhibit, which completely filled the stage, was a very artistic display, and was awarded the silver medal of the Newport Horticultural Society. The main floor of the theatre was taken up with the competitive exhibits and the broad piazzas of the theatre were filled with the trade exhibits. In the class for the best collection and display, exhibits were put up by B. Hammond Tracy, William Sim, T. A. Havemeyer, Knight & Struck, John Lewis Childs, and Arthur Cowee. The prizes in this class being won by B. Hammond Tracy and William Sim, first and second, respectively.

Important awards other than in the competitive classes were as follows: A. E. Kundred for new seedling gladioli, "Mrs. Dr. Norton," first class certificate of merit, exhibited by L. Merton Gage.

R. W. Swett for gladioli "Liebesfeuer," first class certificate.

C. M. Bogholt, for an exceptionally well-grown vase of gladioli, "Europa," cultural certificate.

John Scheepers & Co., for seedling yellow gladioli

3/7229, a first class certificate.

John Lewis Childs, certificate of merit for new gladioli, "Newport."

Honorable mention to Brookland Gardens for seedlings, and W. A. Burpee & Co. for early flowering strain from seed. A. E. Kundred for Primulinus Hybrids. N. Cowee, John Lewis Childs, Knight & Struck and T.

A. Havemeyer, for displays.

The judges were William Anderson, South Lancaster, Mass.; James Wheller, Natick, Mass.; J. Zerstraten, Saxonville, Mass.; James Robertson, John B. Urguhart, and Bruce Butterton, of Newport.

#### GOLDEN GATE PARK.

(Continued from page 411.)

Oleander fifteen feet in height and the Wistaria fifty feet and the Passion Vine to the tree tops. The Canterbury Bells are as much at home here as in Canterbury itself. The Rhododendron does as well as it doesin the mountains of Virginia or North Carolina, in England or the Himalayan Mountains. All grow together in the same bed.

The beautiful Rhododendron Falconeris opens the season by blooming in February, the other Punjab species, such as the Nobleanum, carry the season until the hybrids bloom in April and May, as do the Catawbiense, after which the woolv leaved, white flowering. lily scented Campanulatum carries the season until late in July. So it is with Azaleas, both evergreen and deciduous, native and exotic, all are doing well and tell the story of our climate.

Of course, our summers being dry, no rain falling from May until October, the country looks dry and brown compared to the eastern summer effects, still where water is abundant, lawns may be kept in excellent condition even in midsummer or until the October rains begin, two weeks after which time all the country takes on its verdure effect and the hills are green again until the following June.

On account of our rainless Summer, it becomes necessary to provide water in abundance for the irrigation of lawns, shrubs and flower beds. A system of wells and pumps has been constructed in Golden Gate Park with powerful pumps installed by which over two million gallons per day are pumped every day during the dry season. To store this water, reser-voirs at different elevations have been built with a combined storage capacity of over thirty million gallons. These reservoirs, instead of being built in ordinary shape, have been constructed with natural appearing outlines, giving a park lake effect that greatly enlivens the general landscape. In filling these lakes with water from the wells instead of pumping directly into the reservoir the water is pumped to the top of Strawberry Hill, which is four hundred and twelve feet above tide and flows over a waterfall to a twentyfive acre lake located one hundred and twelve feet below, giving our people a very good idea of a natural waterfall.

The Japanese tea garden is a very popular feature of Golden Gate Park, containing as it does beautiful gateways or "Toria," as the Japanese call them, artistic tea houses where tea is served by picturesque Japanese maidens, dressed in their native costume; pretty waterfalls and lakelets with tiny little rills connecting the ponds spanned by their characteristic stone and other bridges, Japanese stone lanterns are everywhere set in clumps of Japanese trees in great variety. In course of construction is a Japanese temple with moat and stone approaches, bronze dragons, Buddhas, eagles

Along the easterly line of the Pacific Ocean under the jurisdiction of the Park Commission is a reservation known as the Great Highway. This highway leads from the famous Cliff House to Lake Merced, a distance of about three miles, and is from two hundren and fifty to three hundred feet wide. It has been reclaimed from the ocean by the sea-bent grass catching and holding the sand drift from the ocean. sea-bent grass holding the sand has built this bank ten feet above high-water to a width of over two hundred feet, on top of which the Park Department has built an oiled macadam driveway where thousands of visitors enjoy the ocean view daily. For autoists it is a very popular drive.

#### HERE, THERE AND EVERYWHERE

#### DON'TS FOR YOUNG GARDENERS.

No doubt some will wonder at the title chosen for my subject. When we remember that the majority of the rules and regulations laid down for our conduct, ever since the creation of the world, have consisted of "Thou shalt not," for which "don't" is our modern substitute. I think we may profitably consider a few "don'ts" which peculiarly affect ourselves. Much has been said and written about raising the status of the gardener. This must be done by ourselves, individually and collectively. No one can do it for us

Don't full to render prompt and cheerful obedience to those over you. This will help to fit you for the command of others, and the work will be more easily and quickly done.

Don't lose an opportunity of learning. Knowledge is power.

Don't be shy in asking questions regarding your work. "He that questioneth much shall learn much."

When working with others; don't always look for the "light end." Do your share, and, if blessed with superior strength, a little more.

When pruning, ton't leave ragged ends; always make a short elean out.

Don't water a plant without first making sure it requires it. A good hand with the watering-can is very valuable.

When planting don't turn the ends of the roots upwards, it is not their natural direction.

Don't forget orders and instructions, it is a poor excuse for having failed in your duty to say "I forgot." Our memories are largely what we make them.

When accidents happen, or crops fail to realize expectations, don't blame subordinates until you have first examined yourself

When entering on a new situation, don't find fault with every thing done by your predecessor. Rather let your energies be directed to obtaining better results, which will speak for themselves and be appreciated in due time.

When successful in growing any particular subject, don't jump to the conclusion that every method except your own must be wrong. Remember more than one road leads to London.

Don't guarrel with your fellow workers. A quarrelsome person

is neither loved, feared or respected.

It successful in lite, don't get swelled head; but thank Him from whom all blessings dow. C. Portsmouth, in Journal of Brit ish Gardeners' Association.

#### FLOWER NAMES, ENGLISH AND LATIN.

"Flowers in literature should be treated broadly and generally. perhaps even vaguely -just as the eye drinks delight from a field of poppies or a wood carpeted with wild hyacinths," writes the Right Hou, George W. E. Russell in a delightful essay on flowers, "taking no account of genera or species and ignoring the jargon of 'frond' and 'stamen' and 'pollen.' Matthew Arnold wrote to his friend Grant-Duff: 'You first led me to try and know the names and history of the plants I met with, instead of being content with simply taking pleasure in the look of them; and you have at least doubled my enjoyment of them by doing so. But, with all deference to my great teacher, I doubt if this is the common experience. Would Wordsworth really have enjoyed the lesser celandine, or Burns the mountain daisy, more keenly because some botanically-minded triend had lectured on their characteristics?" "Scientific nomenclature," the writer continues, "is always hideous, and the botanical habit of labeling or libeling innocent flowers and plants with Latinized nicknames is even painfully incongruous. English names have a tenderness and beauty all their own, simple and homely-yet romantic rose and pink and lily of the valley, and lilac (better pronounced laylock); primrose, daffodil and snowdrop, heartsease and pansy, cowslip and buttercup and forget-me-not, meadowsweet and love-in-idleness, foxglove and bluebell, even cherry-pie, dusty-miller, and old-man's-beard. Over against such names as these set fuchsia, dahlia, calceolaria, pelargonium, ampelopsis Veitchii, odontoglossum, madevallia, Harryana, Blairii No. 2 and Dorothy Perkins, and no one who has ears to hear can doubt that our English forefathers knew better than their descendants the true language of leaf and flower.

But this subject may be argued quite as well from the other side. "Linaria, Saponaria, Salvia, Ajuga, Anthyllis, Potentilla Artemisia—what could be more charming?" asks G. Flemwell in his "Flower Fields of Switzerland." Are they not a thousand times more æsthetic, he asks, "than their English counterparts—Toadflax, Soapwort, Sage, Bugle, Kidney Vetch, Cinquefoil, Wormwood." A writer to the Times, Mr. Flemwell tells us, "bemoans the growing use of Sedum instead of Stonecrop, and of Antirrhinum instead of Snapdragon, and he calls it an immeces-

sary use of botanical terms,' and thinks that 'the want of beautiful English names to many beautiful flowers seems a reproach to their beauty.' But there are other authorities, equally numerous, who hold a contrary view, considering that too much is being made of English names, and that 'confusion worse confounded' is a very natural consequence. One catches the sound of more than two voices in the discussion; one hears not only the several plaints of botanist and flower-lover, but also the claims of the champion of folklore, the mere amateur gardener, the uncompromising patriot, and the incorrigible sentimentalist. And something in reason is said by each one of them -although honors are not so easy as to enable one to call it a case of six of one and half-a-dozen of the other. For, perhaps, those who strive for a langue bleue in this domain and choose Latin have the weightier cause at heart.

"George Crabbe, the poet, once wrote an English treatise on botany, but never published it, because of the remonstrances of the Master of Trinity College, Cambridge, who objected to degrading the science of botany by treating it in a modern lan-Such rigorous adhesion to Latin is of the relatively narrow past; nor is this dead tongue likely ever again to be a subject for such blind idolatry." Mr. Flemwell quotes Alphonse Karr who, in "Les Fleurs Animées," designates the men of learning as "pitiless tyrants," who have "seized upon the frail daughters of sky and dew" and "have thrown them into the crucible of ety-. and as if to assure themselves of impunity, they have hidden their victims beneath a heap of barbarous names." "All this is frightful, is it not? . . . . Unfortunately it is all very necessary." M. Karr continues. "To admire is not to know, and, in order to know, system and method are indispensable. . . How could we do without the help of etymology? Pardon, then, these men of science, who have done nothing but obey the law of necessity, and enter into the beautiful domain from which they have dissipated the darkness.' This," Mr. Flemwell says, "is delightfully put, and is all very true. Latin nomenclature does tend immensely to dispel confusion, though in certain quarters it may wound the sense of sentiment, and we shall no doubt always have confirmed adherents of popular  $\mathrm{names.}^{**} = L_x \, change$ 

#### RECREATION WORK PROBLEMS OF PARK BOARDS.

(Continued from page 418.)

the renting per season of such lockers is justifiable at any fee if the demand for them exceeds the accommodations.

Refectory Service No one, of course, will claim that refreshments, outside of good drinking water, should be furnished gratis, but the claim is made by many that such service should be rendered at cost.

I claim that all such service should be rendered by park authorities through their own employees and not through concessions; that all drinks and foods should be served in the best possible manner and must be of the best quality; and that they should be sold at a reasonable profit to the board.

The following reasons, I believe, will sustain my views and claims in this matter.

First—Park authorities should not enter into unfair competition with others who have to make their living in that business.

Second—The profits so earned can be used to advantage in the betterment of the service, equipment, and in other improvements by which the public will be benefited.

I am of the opinion that in charging reasonable fees for such, and similar services rendered, as herein described, we accomplish at least three distinct desirable things:

First—We gain the means not otherwise obtainable of rendering additional desirable service.

Second—We secure those means through taxing people who make use of that service and are thereby directly benefited.

Third—We are better able to determine what service is really needed, wanted and appreciated, and consequently, we are less liable to spend labor and money uselessly.

#### NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st. N. Y.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Dahlia Society. Joseph J. Lane, secretary, 11 West 32d st., N. Y.

American Gladiolus Society. Henry Yonell, secretary, Syracuse, N. Y.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 40 West 28th st., N. Y.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

Women's National Agricultural and Horticultural Association.

Miss Margaret Jackson, secretary, Englewood, X. J.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society.

W. G. Carter, secretary, Bernardsville, N. J. First Monday every month, Horticultural Hall, 7:30 p. m., Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Cleveland Florists' Club.

Frank A. Friedley, secretary, 95 Shaw avenue, East Cleveland, Ohio. Second Monday every month, Hollenden Hotel, Cleveland, Ohio.

Cincinnati Florists' Society. Alex. Ostendorp, secretary, Cincinnati, Ohio. Second Wednesday every month, Jabez Elliott Flower Market.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn.
Second and fourth Fridays every month, Gust. Malmquist. secretary, Fair Oaks. County Building, Hartford, Conn., 8 p. m.

Detroit Florists' Club. R. H. Wells, secretary, 827 Canfield avenue. Detroit, Mich.

Third Monday every month, Bemb Floral Hall.

Dobbs Ferry Gardeners' Association. B. Harms, secretary, Dobbs Ferry, N. Y. Last Saturday every month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls, N. Y.

May and June, Poughkeepsie, N. Y.

Elberon Horticultural Society.

George Masson, secretary, Oakhurst, N. First Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Essex County Florists' Club.

John Crossley, secretary, 37 Belleville avenue, Newark, N. J.

Third Thursday every month, Kreuger Auditorium.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.
James Whiting, secretary, Amherst, Mass.

Second Tuesday every month.

Florists' and Gardeners' Club of Rhode Island.

William E. Chapell, secretary, 333 Branch avenue, Providence, R. L. Fourth Monday each month, Swartz Hall.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Gwynn Falls Park,

Sta. F, Baltimore, Md. Second and fourth Monday every month. Florist Exchange Hall.

Gardeners and Florists of Ontario.

Geo. Douglas, secretary, 189 Merton street. Toronto, Canada,

Third Tuesday every month, St. George's Hall.

The Horticultural Society of  $N \mbox{ew York}.$ Geo. V. Nash, secretary, Bronx Park, New York City.

Monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Lake Geneva Gardeners' and Foremen's Association.

Raymond Niles, secretary, Lake Geneva. Wis.

First and third Tuesday every month, Oct. to April: first Tuesday every mouth, May to Sept., Horticultural Hall.

Lenox Horticultural Society. John Carman, secretary, Lenox, Mass. Second Wednesday every month.

Los Angeles County Horticultural Society. Hal, S. Kruckeberg, secretary, Los Angeles, Cal.

First Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachu- A. R. Kennedy, secretary, Westbury, L. I. setts avenue, Boston, Mass.

Menlo Park Horticultural Society. Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Minneapolis, Minn. Third Tuesday every month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Fourth Friday every month, Red Bank.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Society.

Second Wednesday every month except Edward J. Reagan, secretary, Morristown. N. J.

Second Wednesday every month, except July and August, 8 p. m., Madison, N. J.

Nassau County Horticultural Society. Harry Jones, secretary, Glen Cove, N. Y. Second Wednesday every month, Pembroke Hall, 7 p. m.

New Bedford Horticultural Society. Jeremiah M. Taber, secretary, New Bedford, Mass.

First Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street,

Orange, N. J. First Monday every month, Jr. O. W. A. M. Hall., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London, Conn.

Second Thursday every month, Municipal Bldg.

New Orleans Horticultural Society.

C. R. Panter, secretary, 2320 Calhoun street, New Orleans, La.

Third Thursday every month, Association of Commerce Bldg.

Newport Horticultural Society.

Wm. Gray, Secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club.

John Young, secretary, 54 W. 28th street, New York.

Second Monday every month, Grand Opera House.

North Shore Horticultural Society.

Leon W. Carter, secretary, Manchester, Mass. First and third Fridays every month.

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society.

M. J. O'Brien, secretary, Mt. Kisco, N. Y. Third Thursday every month, except June to August, at 8 p. m.; December to February, 3 p. m.

Oyster Bay Horticultural Society.

Fourth Wednesday every month, Oyster Bay, N. Y., 7:30 p. m.

Pacific Coast Horticultural Society.

W. A. Hofinghoff, secretary, 432 Phelan Bldg., San Francisco, Cal. First Saturday every month, Redmen's

Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month.

Paterson Floricultural Society. Sebastian Hubschmitt, Jr., secretary, 61

Seventh ave., Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society. Morris County Florists' and Gardeners' David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

Third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut st.
Paterson, N. J.

First and last Friday every month, Working Man's Institute, Paterson, N. J.

Philadelphia Florists' Club.

David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

First Tuesday every month, Horticultural Hall, 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. First Tuesday every month, Fort Pitt

Redlanrs (Cal.) Gardeners' Association. Jas. McLaren, secretary, Box 31 R. F. D. No. 2, Redlands, Cal.

Rhode Island Horticultural Society.

E. K. Thomas, secretary, Box 180, Kingston, R. I.

Third Wednesday every month, Public Library, Providence, R. I.

Rochester Florists' Association.

H. R. Stringer, sceretary, 47 Stone street, Rochester, N. Y.

Second Monday every month, 95 Main street, East.

Shelter Island Horticultural and Agricultural Society.

First and third Thursdays every month.

Southampton Horticultural Society. Julius W. King, secretary, Southampton. X. Y.

First Thursday every month, Oddfellows Hall.

Tacoma Florists' Association.

F. H. Atchison, secretary, South 50th and East F street, Tacoma, Wash. Third Thursday, Maccabee Hall, 11th and C streets.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarrytown, N. Y.

Last Tuesday every month, 7:30 p. m.

Texas State Horticultural Society. G. H. Blackman, assistant secretary, College Station, Texas.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y.

First Wednesday every month.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington, D. C.

First Monday every month.

Yonkers Horticultural Society.
Thos. Mahoney, secretary, Yonkers, N. Y First Friday every month, Hollywood Inn., 8 p. m.

Westchester and Fairfield Horticultural Society.

J. B. McArdle, secretary, Greenwich, Conn Second Friday every month, Doran's Hall. Greenwich, 8 p. m.

#### GARDEN CLUBS

International Garden Club. Miss Mary M. Kearney, secretary, 123 East 53rd street, New York. Club House, Bartow Mansion, Pelham Bay Park, N. Y.

The Garden Club of America. Mrs. J. Willis Martin, president, 1721 Locust Miss Sarah W. Hendrie, secretary, Grosse street, Philadelphia, Pa.

The Garden Club of Alma, Mich. Mrs. E. J. Lamb, secretary, 803 State street. Twice a month at members' residences.

The Garden Club of Alleghany County, Pa. Mrs. F. H. Denny, president, Sewickley, Pa.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich. Miss Annie Condon, secretary, 920 University avenue.

The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle, secretary, Gladstone, N. J. Second and fourth Thursdays, middle of

April to November. August excepted.

The Garden Club of Cleveland, Ohio. Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Mrs. F. K. Holister, secretary, East Hampton, N. Y.

The Park Garden Club, of Flushing, N. Y. Mrs. John W. Paris, president, Flushing, N. Y.
Second and fourth Mondays, members'

homes.

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob, Conn.

At members' residences.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson P. O., Md.

First and third Thursdays, April to December at members' residences.

The Gardeners of Mont. and Dela. Counties, Pa.

Miss Elizabeth D. Williams, secretary, Haverford, Pa. At members' residences.

The Weeders' Club, Pa.
Miss Ellen Winsor, secretary, Haverford,

First and third Wednesday at members' residences.

The Garden Club of Lake Forest, Ill. Mrs. Tiffany Blake, president, Lake Forest, Ill.

The Larchmont Garden\_Club, N. Y. Mrs. Edgar Park, secretary, Larchmont, N. Y. First Thursdays.

The Garden Club of Lawrence, L. I. Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass. Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York. First and third Mondays, June to Octo-

Lewiston and Auburn Gardeners' Union. Mrs. George A. Whitney, secretary, Auburn, Me.

ber at Lenox.

The Garden Club of Litchfield, Conn. Mrs. Henry S. Munroe, secretary, 501 W. 120th street, New York.

Second Friday, June to October at Litchfield.

The Garden Club of Michigan.

Pointe Farms, Mich.

At members' homes. Two Spring and one Fall Shows. Fifty-third street, New York. The Millbrook Garden Club, N. Y.

Mrs. Keyes Winter, secretary, 125 E. 78th street, New York. Meet at Millbrook, Dutchess County, N. Y.

The Bedford Garden Club, N. Y. Mrs. Benjamin W. Morris, secretary, Mt. Kisco, N. Y.

The Garden Club of New Canaan, Conn. Mrs. Francis H. Adriance, secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I. Miss Dorothea G. Watts, secretary, Newport, R. I.

Annual Meeting, August. Others when called. Five monthly summer shows.

The Newport Garden Club. Mrs. Chas. F. Hoffman, president, 620 Fifth avenue, New York.

The Garden Club of New Rochelle, N. Y. Mrs. Lucius W. Hitchcock, corresponding secretary, Premma Point Park. Members residences and Public Library. Shows monthly, May to November,

The Garden Club of Norfolk, Conn. Philemon W. Johnson, secretary, Norfolk, Conn.

Second Wednesday each month at Public Library.

North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa. Miss Ernestine A. Goodman, secretary, Chestnut Hill.

The Garden Club. Mrs. Aubrey Pearre, Jr., secretary, Pikes-

ville, Md. The Garden Club of Ridgefield, Conn.

Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York. Twice monthly at Ridgefield. Also exhibitions.

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood, N. J.

Rumsen (N. J.) Garden Club. Miss Alice Kneeland, secretary Rumson, N. J.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md.

The Garden Club of Rye, N. Y.
Mrs. Samuel Fuller, secretary, Rye, N. Y. First Tuesdays, April to October. Also special meetings and Flower Shows.

The Shedowa Garden Club, New York. Miss Mary Young, secretary, Garden City, N. Y.

Second Wednesday each month at members' residences. Vegetable and flower shows, June and September. Correspondence with other clubs invited.

Short Hills Garden Club, N. J. Mrs. C. H. Stout. secretary, Short Hills, N. J. Weekly at Short Hills Club House. Flower Shows April and June, and annual Dahlia Show.

## Shorburn's Bulb Catalogue



Send for vourcopy.

Our bulbs are fullsize, true to name and very beautiful.

We have really wonderful assortment of 66 of our

choicest bulbs for \$1.00. You may send a dollar bill, pinned to your order, at our risk.

To those who love flowers and "growing things," as all gardeners do, our Bulb Catalogue will be a revelation. Send for it today.

#### J. M. Thorburn & Co.

53C Barclay Street, through to 54 Park Place, New York



The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W. 33rd street, New York.

Twice a month in summer at Southampton. L. I.

The Staten Island Garden Club, N. Y. Mrs. J. Harry Alexander, secretary, Rosebank, S. I.

Twice a month. At members' homes. Winnetka, Ill.

The Garden Club of Trenton, N. J. Miss Anne MacIlvaine, secretary, Trenton, N. J.

Bi-monthly meetings at members' residences.

The Garden Club of Illinois. Mrs. William G. Hibbard, Jr., secretary, Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.

Mrs. Morris Rutherford, secretary, Warrick, Orange County, N. Y.

Warrenton Garden Club, Virginia. Mrs. C. Shirley Carter, secretary, Warrenton, Va.

#### HORTICULTURAL EVENTS

Fourth National Flower Show, under the auspices of the Society of American Florists and Ornamental Horticulturists, Philadelphia, Pa., March 25 to April 2, 1916.

International Flower Show, Grand Central Palace, New York, 1916.

American Dahlia Society Show, Amerian Museum of Natural History, New York, Sept. 24-25-26.

American Rose Society, Fall Show, Cleveland, Ohio, November 10-14.

Chrysanthemum Society of America, Annual Show, Cleveland, Ohio, November 10-14, 1915. Special Show, San Francisco, Cal.

Cleveland Flower Show, Coliseum, Cleveland. Ohio, November 10-14, 1915.

cago, Ill., November 9-14.

American Institute, Annual Chrysanthemum Show, Engineers' Building, New York, November 3, 4, 5.

Connecticut Horticultural Society, Annual Dahlia Show, September 22-23, 1915.

Dutchess County Horticultural Society, Annual Flower Show, Poughkeepsie, N. J. October 28-29.

Horticultural Society of New York, Annual Fall Show, November 4-7, 1915.

Lenox Horticultural Society. Fall Show, Lenox, N. Y., October 26-27.

Massachusetts Horticultural Society, October Show, October 2-3. Autumn Show, Boston, November 4-7.

Menlo Park (Cal.) Horticultural Society, Fall Show, Menlo Park, Oct.

Madison, N. J.

Nassau County Horticultural Society, Rose Show, Nassau Country Club, Glen Cove, L. I. Dahlia Show, October 7. Fall Show, October 28-29. Dahlia and Fall Show will be held in Pembroke Hall, Glen Cove,

New Bedford Horticultural Society, Dahlia Show in September. Chrysanthemum Show in November. New Bedford, Mass.

New London Horticultural Society, Chrysanthemum Show. November 3-4, 1915. New London, Conn.

New Jersey Floricultural Society, Dahlia and Vegetable Show, Orange, N. J., October

North Westchester Co. Horticultural and Agricultural Society, Chrysanthemum Show, Mt. Kisco, N. Y., October 29-31,

Oyster Bay Horticultural Society, Dahlia Show, October 5-6. Chrysanthemum Show, November 2. Oyster Bay, N. Y.

Paterson Floricultural Society, Annual Flower Show, September. Chrysanthemum Show, November. Y. M. C. A. Building, Paterson, N. J.

Pennsylvania Horticultural Society, Chrysanthemum Show, Philadelphia, November

Monmouth County Horticultural Society. Annual Flower Show, Red Bank, N. J. October 27, 28.

Rhode Island Horticultural Society, September exhibition, September 16, 17. November exhibition, November 11, 12. Narragansett Hotel, Providence, R. I.

Short Hills Garden Club, Dahlia Show, Club House, Short Hills, N. J., Sept. 28-29.

Tarrytown Horticultural Society, Annual Fall Show, November 3, 4, 5, Tarrytown,

Westchester and Fairfield Horticultural Society, Fall Show, Stamford, Conn., November 2-3, 1915.

If you are a member of a local horticultural society or a garden club and do not find the report of your association's meetings or other events of it in our columns, their omission is due to the fact that your secretary has not sent them in. Get after him!

#### TUXEDO HORTICULTURAL SOCIETY.

The regular monthly meeting of the Tuxedo Horticultural Society was held in Chicago Fall Flower Show, Coliseum, Chi- the Parish House on September 1st, President Frederick Rake in the chair. The arrangements for our Fall Show, which will be held in the Tuxedo Club House on November 5, 6 and 7, are well advanced. The final schedule will be ready in about two weeks. Everything is promising that the coming show will surpass any of its predecessors. In this year's schedule we are offering special prizes from the following firms: Scott Bros., John Wilks, A. K. Pierson Co., Inc., Charles H. Totty, W. Atlee Burpre Co., Stumpp & Walter, Vaughan's Seed Store, Wm. F. Mc-Cord Co., Bon Arbor Chemical Co., Weeber & Don, John Scheepers & Co., Carters Tested Seed Co., Hitchings & Co., Burnett Bros., Julius Roehrs Co., Harry A. Bunyard Co., Lager & Hurrel. A letter was read from the president of the N. A. G. with reference to the affiliation of a member from one Society to the other. The subject brought out some points in discussion and it was agreed we support the principles of affiliation. Mr. D. McGregor was appointed to Morris County Gardeners' and Florists' fill the vacancy on the Executive Committee Society, Annual Fall Show, October 28, 29. caused through the death of C. Sheppard. caused through the death of C. Sheppard.
Thos. Wilson, Sec'y.

#### LAKE GENEVA (WIS.) SHOW.

The Lake Geneva midsummer exhibition of fruit, flowers, vegetables, farm and dairy Lake Geneva Garden Club, was a pronounced Pembroke Hall, Glen Cove, Wednesday, Ausuccess, both as to the exhibits and attendfar exceeding previous years, competition being very keen in a great number of exhibits. The table decorations were a particularly ladies exhibiting. The floral decorations of by W. Noonin, Thanks of Society. the first prize table were yellow antirrhinums. all tables being most tastefully arranged, and a striking contrast from each other. Cut flower exhibits were very good, considering the wet season, the large collections being very keenly contested. Gladiolis, one of our best summer flowers, was shown in large quantities, special exhibits being staged by Vaughan's Seed Store, Chicago, and A. E. Kunderd, Goshen, Ind. The vegetable exhibit was equal to other years in quality, but the entries more numerous; the fruit exhibit being par excellence, hot house grapes as usual taking the leading part, peaches and nectarines, plums and grapes grown under glass in tubs making a very unique exhibit. A plum tree full of delicious plums, shown by Mrs. Francis T. Junkin, captured a certificate of merit. A certificate of merit was also awarded to Wm. J. J. Mitchell for three Lilium Auratums, grown in eight-inch pots. one bulb in a pot, the three plants showing 112 fully developed blooms. The quality of the exhibits and the large attendance testify as to this exhibition being one of the best yet. The following is a list of awards:

Table Decorations Mrs. J. B. Grommes, 1st; Mrs. S. B. Chapin, 2nd; Mrs. Edward F. Swift.

Mrs. S. B. Chapin, 2nd; Mrs. Edward F. Swift, 3rd.
Corsage Bouquet—Mrs. John J. Mitchell, 1st. Basket Cut Flowers Mrs. Leland 1st; Mrs Grommes, 2nd.
Basket Wild Flowers Mrs. Katherine Lefens, 1st; Miss Chapin, special, 1st.
Cut Flowers and Plants Mrs. T. T. A. Junkin, Axel Johnson, gardener, took 1st in; 12 Phlox, mixed; best 10 varieties Gladiolus, 3 spikes each; best collection of Primulinus, Mrs. T. J. Lefens, R. J. Niles, gardener, 1st in; Antirrhinums, Delphiniums, African Marigolds, One special for Radish.
Wm. Wrizlev, Jr., Chas, Lockwood, gardener, 1st in Delphiniums, six Lilies,
J. J. Mitchell, A. J. Smith, gardener, 1st in; Antirrhinums, Hybrid Roses, Tea Roses, specimen Palm, collection of Gladiolus,
Martin A. Ryerson, Miles Barrett, gardener, 1st in Egg Plants, Kohl Rabí.
N. W. Harris, A. P. Montgomery, gardener, 1st in Sweet Peas, 6 varieties, 25 stems each, Collection of Sweet Peas, no restrictions, group of foliage plants, six Tuberous Begonias, six Rex Begonias, collection of cut flowers, 36 vases.
Mrs. A. C. Allerton, Robert Blackwood, gar.

Vases,
Mrs. A. C. Allerton, Robert Blackwood, gardener, 1st in African Marigolds, 18 varieties, Perennials, collection of roses, collection of Gladiolus, 6 varieties, 5 spikes of each, Mrs. W. S. McCrea, S. Gottar, gardener, 1st special on Dahlia,
Edward F. Swift, R. J. Sampson, gardener, 1st in tomators.

Edward F. Swift, R. J. Sampson, gardener, 1st in tomators.
E. A. Potter, John Topilinski, gardener, 1st in Helianthus.
Mrs. H. H. Porter, Wm. Wahlstedt gardener, 1st in Dianthus, Shasta Daisy, Asters, S. B. Chapin, Chas, Akerson, gardener, 1st in green onions, Parsnips, Parsley, Peas, Potatoes, Currants, Gooseberries, Pears, Cherries.

Potatoes, Currants, Gooseberries, Pears, Cherries,
N. C. Sears, N. P. Pearson, gardener, 2nd in
Rhubarh, Raspherries, Apples, Potatoes,
J. H. Moore, A. Martini, gardener, 1st in
Carnations, Three Forns, 6 white Gladiolus,
string Beans (green), Cabbage, Celery, Onion
Pulbs, Greenhouse Grapes (black), Peaches,
Nectarines, greenhouse grown Grapes,
Seymour Morris, C. Sandegard, gardener, 2nd
in string Beans (green),
C. H. Schweppe, Herman Yakes, gardener,
Lake Forest, Ill., 2nd in Antirrhinums,
F. D. Countiss, Wm. Griffiths, gardener, 1st
in special Gladiolus and Antirrhinum,

#### NASSAU COUNTY HORTICULTURAL SOCIETY

The regular monthly meeting of the Nassau products, held under the auspices of the County Horticultural Society was held in

ance, the number of entries for competition to active membership. Messrs. H. Gaut, J. McCarthy and V. Cleves were appointed judges for the evening, and awarded as follows: 1 vase of 12 asters, mixed, first, A. Walker: 1 vase of gladiola, 12 spikes, first, strong feature, the tables being set for six E. Westlake; 6 ears of sweet corn, first, F. persons, and personally arranged by the Petroccia; Campanala Pyramidalis, exhibited

JAMES GLADSTONE, Cor. Sec.

INDORRA I lurseries



#### G. D. TILLEY Naturalist

Everything in the Bird Line from a Canary to an Ostrich"

The

DORRA

Birds for the House and Porch Birds for the Ornamental Waterway Birds for the Garden, Pool and Aviary Birds for the Game Preserve and Park

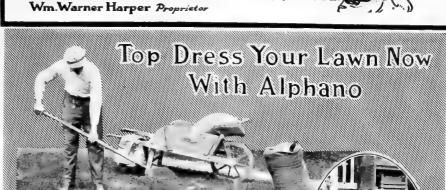
I am the oldest established and largest exclusive dealer in land and water birds in America and have on hand the most extensive stock in the United States. G. D. TILLEY, Naturalist, Box 10, Darien, Conn.

ALCOHOLD BY WE WINDOWS CONTROL OF THE STATE 
lant for Immediate Effect Not for Future Generations

TART with the larg-Start with the can be secured! It takes over twenty years to grow many of the Trees and Shrubs we offer.

We do the long waiting -thus enabling you to secure trees and shrubs that give immediate results. ready.

Price List now



### Fall Made Lawns Are Best

AKE the question of the time it takes to start the seed for example: in the spring it requires from fifteen to twenty days

it requires from fifteen to twenty days before a sprout comes; while in September only five to ten days. The ground is warm and continues to stay warm enough to rapidly promote root growth long after frost has killed things. Think a minute and you will recall how you have seen green grass even after snow. With the frequent rains we had in August, the ground is in ideal shape for turning over and making an entirely new lawn; or renovating an old one. We can't recall a season for many years when the conditions were quite so as using Alphano to enrich your soil; that part of the work is easily and in expensively solved.

By using Alphano to enrich your soil; that part of the work is easily and in expensively solved.

Being odorless you can use it even right under your dining room window, without offense. Being free from weed seeds gives it a great advantage over barn yard fertilizers, which are bound to bring all kinds of pests to your lawn. So patch up your old lawn; or make your new one now. Have it off your mind for next spring.

Send for our New Lawn Book. You are most welcome to a copo. It tells you in a chatty, interesting way all about the making and care and fare of lawns. It is abundantly illustrated.

\$12 a ton in bags F. O. B. Alphano, N. J.

\$8 a ton by carload in bulk

hano

#### NORTH SHORE (MASS.) SHOW.

The annual summer flower show of the North Shore (Mass.) Horticultural Society was held on the estate of Mrs. R. C. Winthrop, West Manchester.

Among the more notable displays was that of Mrs. H. L. Higginson, who had a number of small exhibits, and won first prize for the best specimen plant lilium auratum and first prize for best dinner table decoration, a rustic arrangement with a miniature tea garden for a centerpiece.

Mrs. W. D. Denegre (H. Clark, gardener) took second prize for table decoration in sweet peas. Miss Pauline Croll also entered a table decoration in snap-dragon. Mrs. F. P. Frazier won several prizes, including a first for artistically arranged table of hardy herbaceous flowers and first for specimen plant petunia (Rosy Morn). Mrs. Lester Leland (E. Wetterlow, gardener) received many prizes, including a first for best table of flowers arranged for effect, for which Mrs. S. P. Blake took second. Mrs. Leland took first for 12 distinct varieties of specimen plants and Mrs. Lathrop Brown second. Mrs. Leland also received a silver medal for a magnificent group of begonias, first prize for 12 achemines and a certificate for a new geranium. Horticulture.

#### LENOX (MASS.) SHOW.

The Lenox Horticultural Society held its midsummer exhibition in the Town Hall, Lenox, Mass. There was, as usual, a keen competition in all classes. The leading display was the Sweet Peas, which filled half the Hall.

In the class of 24 distinct Peas, Mrs. William B. Osgood Field (G. Foulson, gardener) was awarded first; second, Mr. Geraud Foster (E. Jenkins, superintendent). Both exhibits were of high quality. In the class for one vase, distinct, Geraud Foster took leading

Perennials were also a striking feature in and Mrs. W. D. Straight. the show. Miss Adele Kineland (E. Etherington, gardener) was awarded first for the best collection of 12 distinct varieties, which were elected to active membership. included some novelties.

In the class of 12 varieties of annuals, Charles Lanier (A. H. Wingate, gardener) took first.

A selection of Gladioli was shown by A. N. Cooley, of Pittsfield (E. Edwards, gardener), who secured all the leading awards in this class.

Both indoor and outdoor fruit were exhibited by F. E. Lewis (F. Smith, gardener). who secured first for the best nine varieties; second, Mrs. R. Winthrop (S. W. Carlquist, London Horticultural Society was held in gardener). The fruit was the best that has the Council Chamber, Municipal building, been shown in Lenox.

Mrs. John E. Alexandre (W. Jack, gardener) was awarded first for a collection of outdoor fruit.

Vegetables also came well to the front. Carlos de Meredia (J. Thompson, gardener) won first for the best collection of 18 distinct varieties.

Collection of 12 distinct varieties vegetables, Mrs. Robert Winthrop.

Collection of six distinct varieties, Mrs. J. E. Alexandre (W. Jack, gardener)

There was a fine display of Phloxes, Antirrhinums, Regonias, Asters.

A. N. Cooley was awarded a diploma for an exhibition of Gladioli and a F. C. C. for two new varieties, Europa and Baltimore.

R. & J. Farquhar & Co., Boston, staged a new single Chrysanthemum named Mrs. Charles Daniels.

Wm. Tricker, Arlington, N. J., exhibited a new lavender Nymphæa named Mrs. Woodrow Wilson and was awarded a first class certificate. Mrs. Warren Salisbury exhibited a new Candytuft and was awarded a diploma

All over, the show was highly successful.

The judges were Arthur Herrington, N. J.: Robert Scott, Pittsfield, and Fred Hermans, Lenox. LEWIS BARNET, Asst. Sec.

#### OYSTER BAY HORTICULTURAL SOCIETY.

The regular monthly meeting of the Oyster Bay Horticultural Society was held in Fireman's Hall, Oyster Bay, on Wednesday evening, August 25, President presiding.

J. Sorosick reported for the committee that the outing was a great success.

On the exhibition tables there were a fine lot of flowers, fruit and vegetables, and the following were appointed by the president to act as judges: Messrs, Duthie, Hothersall and Humphreys, and they reported as follows: Society's Prize, for one musk melon, Alfred Walker; 6 ears sweet corn, Society's Prize, Henry Gibson; 6 gladiolus, Society's Prize, James Duckham; 6 peaches, Champion, Frank Petroccia, H. M.; 6 pears, Clapp's Favorite, Frank Petroccia, H. M.; 1 vase single dahlia, Katrine Hoyt, H. M.; 1 fern, Elegantissima Compacta, Henry Gibson, H. M.; 2 cauliflowers, Veitch's Autumn Giant, Chas. Milburn, Thanks of Society; 9 tomatoes, Ponderosa, Chas, Milburn, Thanks of Society; 1 egg plant, Black Beauty, Chas. Milburn, Thanks of Society; 7 parsnips, Hollow Crown, Chas. Milburn, H. M.; 4 vases asters, Chas. Milburn, C. C.; 14 varieties of asters, Alfred Walker, C. C.; 1 vase gladiolus, Jno. T. Ingram, H. M.; 1 vase Lilium, Lancibolm Roseum, H. M.; Jno. Y. Ingram, H. M.; 1 cabbage, Chas. Mills, H. M.; 3 Kohl Rabi, Chas, Mills, Thanks of Society.

Prizes were received from the following for the fall shows: A. T. Boddington Co.; P. D. Cravath, Esq.; Wm. L. Swan, Esq.; Messrs, Stump & Walter; Messrs, P. Henderson & Co.; A. N. Pierson, Inc.; & Don; A. Strauss, Esq.; Geo, S. Brewster, Esq.: Mrs. W. R. Coe: J. M. Thorburn Co.,

Ernest Meyer, Cold Spring Harbor; Wm. Ford, Oyster Bay, and H. Gold, Roslyn,

A prize of fifteen dollars was donated to the National Dahlia Society.

Schedules for the Dahlia Show to be held in October are now ready and can be obtained by sending to the secretary for same.

A. R. Kennedy, Sec.

#### NEW LONDON HORTICULTURAL SOCIETY.

The regular monthly meeting of the New State street, Thursday evening, August 12.

A good number of members were present to hear Donald Miller, of the Armstrong place, whose subject was "Window Gardening and the Care of Flower Boxes." A good discussion then followed the address of the

Stanley Jordan, of the Harkness estate, gave a few minutes' talk on the Newport Sweet Pea Show, which he and several members visited last month.

The exhibition tables were filled with some very fine dahlia blooms, shown by Mr. Steward, an amateur member of the society. were exhibited. S. J.

#### THE HEATING PROBLEM SOLVED

Judging strictly according to mechanical merits, it's the METROPOLITAN PATENTED BOILER you want



Because of their proven scientifically perfect construction, Metropolitan Patented Boilers will heat a given amount of water quieker, with less fuel, and less attention than any other boiler on the market

The remarkable heating efficiency and quick steaming qualities of these boilers are due to their large and effective heating surface.

Just a few points of Metropolitan Patented Boiler merit; Smooth, perfect finished castings.

Push nipple connections

Push nipple connections.

Large fire box, providing ample combustion chamber, and permitting a sufficient charge of fuel to require attention only at long interval.

Peop ash pits making the removal of ashes a slight task Large flues, making the boiler easy to clean.

Grates that are made for hard usage and long service.

And above all, they are Fuel Saving, Not Fuel Wasting.

We also make soft coal boilers which are smokeless, and save 50% in coal

PUT YOUR HEATING PROBLEMS UP TO US.
WE'VE BEEN AT IT FOR 44 YEARS.

#### METROPOLITAN MATERIAL CO.

1396-1412 Metropolitan Ave., Brooklyn, New York

#### SOUTHAMPTON (N. Y.) SHOW.

The ninth annual exhibition of the Southampton Horticultural Society was keen. majority of the exhibits were on July 28 and The weather during both days was ideal.

The entries this year were a record and the competition in some classes was very keen. The majority of the exhibits were cut flowers, annuals for the most part, while pot plants and vegetables were also a notable feature.

The chief prize is \$25 offered by the Southampton Garden Club for best 12 varieties of hardy perennials. This was won by Mrs. Pomeroy, of Easthampton (J. Cassidy, gardener). Other noteworthy exhibits were the Gloxinias, exhibited by Mrs. Howard Russell (Wm. McLeod, gardener); these were the admiration of all. The display of vegetables, tastefully arranged, by Mrs. G. W. Curtis (J. Johnson, gardener) without doubt was the central attraction.

Henry A. Dreer's Water Lilies were noteworthy, as were the many displays by the various nurserymen and florists, including C. E. Harkenbach & Sons, Southampton: G. E. M. Stumpp & Co., Southampton and New York; Oak Park Nursery Co., Patchogue; Swan River Nursery Co., Patchogue, and John Lewis Childs, Flowerfield, L. I.

The judges were Messrs, John Canning, Ardsley-on-Hudson; J. Malcolm, Shinnecock Gladiolus from Henry Fuller, park superin- Hills, and W. Halsey, Southampton. Their tendent, and from the Palmer estate also work was carried out in the most satisfactory . manner. S. R. C.



free. Write for it today, - "Lest you forget." A postcard will do. W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia.

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas,

conductification of the conduction of the conduc

## KENNEDY & HUNTER SEEDSMEN

SEND FOR BULB CATALOGUE

156 West 34th Street One block from New York

"ONLY THE BEST"

है. aanumuunuusaaa saanuu uunuusee , tananastaa , arrusaa attanaa taanaa tanaa tanaa tanaa tanaa tuunuusee aa

**Б**от с чистонный придечения придечения поистем при с честиний придечиний придечиний придечения и чести и чес

## COMPETENT GARDENERS

 ${f q}$  The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

g Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

or reconstruction of the accommunity for the first and a substitution of the accommunity for the substitution of the accommunity for the substitution of the accommunity for the accommuni

**NEW YORK CITY** 

## BEAUTIFUL WATER LILIES

Tricker's Water Lilies were awarded a gold medal at the International Show, New York, March 17th last. Write for booklet containing full description and directions for garden culture, as well as for ponds, fountains, basis, etc.

WM. TRICKER, Box W. Arlington, N. J.

### IMPORTED ORCHIDS

If you contemplate buying imported stock this year write to me.

JOSEPH MANDA, Orchid Expert, Seedsman and Florist WEST ORANGE, N. J.

#### Chrysanthemums - Carnations - Roses

NOVELTIES FOR 1915

If you did not receive our 1915 price list write us

Elmsford Nurseries—Scott Bros., Elmsford, N. Y.

#### ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders—Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N. J.

#### THE MODERN GLADIOLUS GROWER

Published monthly in the interests of both amateur and professional flower growers.

50c. per year-3 years for \$1.00

The Gladiolus as a flower has been wonderfully improved and is rapidly becoming the fashion. Important developments are looked for in the immediate future.

Madison Cooper, Publisher, Calcium, N. Y.

#### THE

## **Elizabeth Nursery Company**

OF ELIZABETH, N. J.,

offer the largest stock of large Evergreens in this country; also a very large stock of small Evergreens, large quantities of specimen Shrubs and an immense stock of Herbaceous plants.

WRITE FOR PRICE LIST

#### Tree Owners and Tree Lovers

Will find much to interest and instruct

## "TREE TALK"

Devoted to Arboriculture and Forestry.

All about the planting, care and treatment of trees and shrubs. Accurate information about pruning, spraying and tree surgery. Send Fifty cents for a full year's subscription to "Tree Talk."

Sample copies free on receipt of 2 cent stamp to cover postage.

Published quarterly by

### THE FROST & BARTLETT COMPANY

26 Cortlandt St.

radi. E. Co. ( - 1.10a. d) 000000 - 1.00 - 1.

<u>а</u> ва..одиничтия паражения выполнять выда

(Suite 212)

NEW YORK

#### HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

#### D. HILL NURSERY CO.

Evergreen Specialists.
Largest Growers in America, Box 305 Dundee, Ill.

Rose Growers With a Background of Fifty Years' Experience

The Conard & Jones Co.
West Grove, Pa.

## THE HIGHWAY TO PERENNIALS LEADS STRAIGHT TO THE PALISADES NURSERIES.

There you will find all kinds and you can take your pick from the best that is grown. Maximum Quality at Minimum Prices. Write W. R. Clucas, Manager.

THE PALISADES NURSERIES, INC., SPARKILL, N. Y.

# AN PIERSON INC. CROMWELL CARDENS CROMWELL CONN

#### HARRY BALDWIN

Manufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS

MAMARONECK, N. Y.

ORGANIAN DI PERMANDIAN DE LA CALENDARIA DE LA CALENDARIA DE CALENDARIA DE LA CALENDARIA DE LA CALENDARIA DE CA

## Bon Arbor Chemical Co.

2.0E. Paradiani in a comprimer de la comprese del la comprese de  la comprese de  la comprese de 
PATERSON, N. J.

#### Manufacturers of

BON ARBOR No. 1. Soluble Plant Life. A most wonderful and invigorating food for all plants, indoor and outdoor.

BON ARBOR No. 2. Best dressing for your lawns.

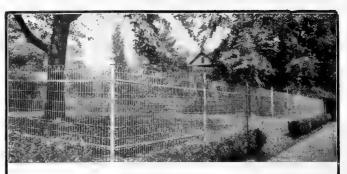
RADIX WORM ERADICATOR. Instantly removes worms from your Tennis Courts, Putting greens, etc.

ANT DESTROYER. Will remove all ants outside or indoors in a week's time. Be sure and try it.

NATURAL HUMUS. Is the best for making new lawns, gardens, etc.

> Write for descripive catalogue and prices

standard 1.4 filippett in en energia manne, a monor e il administrativa de inc



Nothing adds more to the beauty and attractiveness of your grounds than a good, substantial fence. Permanency is of prime importance, too. Select the fence that defies rust and withstands all weather conditions.

fences are made of big, strong wires with clamped joints which prevent slipping, sagging or twisting. This exclusive feature assures unusual rigidity under the most severe strain. Excelsior Fences are dipped in molten zinc which makes them practically indestructible. Write for Catalog J from which to select the style best suited to your needs. Ask your hardware dealer for Excelsior "Rust Proof" Trellises, Flower and Tree Guards.

WRIGHT WIRE COMPANY, Worcester, Mass.





General Offices and Factory-ELIZABETH, N. J.

New York 1170 Broadway

ekekekekekekeke

#### BANISH THE SPARROW

English Sparrows drive away Native Birds. Native halds protect trees and gardens by devouring insects. Join in the war against English Sparrows. The famous

#### DODSON SPARROW TRAP

catches sparrows automatically. Works all the time. Double funnel and automatic drop trap combined no other trap like this. Price, Solae, for his Chacago



### Free Booklet

scribes the fa-mous Dodson bird houses

' E I 191 AF 1903EN DE SENERE MANDELLA

Nature Neighbors A Library of books chiefly about birds-conderfully illustrated. Written by leading authorities. Fre-iolder, and picture of bird in natural colors, if you write.

JOSEPH, H. DODSON, 732 Security Bldg., Chicago, Ill.

### To be successful in your Garden

Write for price

Simple and

effective.

use our Continuous Seed and Plant Forcer The Cloche Co., 130 Hudson St., New York

w mga = 1 °, , i °m ala mow — Gala, Gwoms,Litta ma assumbnin≜

Science is teaching that it is as essential to

## PROTECT PLANT LIFE

from insect pests and the various fungi with which it is afflicted as it is to properly fertilize it. The importance of this to successful cultivation is becoming more and more evident as more is learned about the growth and habits of vegetation.



a concentrated liquid spraying material, readily soluble in water, is used at various strengths, according to directions on cans.

Aphine is equally effective in the house and garden; free from disagreeable odors of most insecticides, and practical for professional and amateur growers.

It is effective against green, black and white fly, red spider, thrips, mealy bug, soft scale, rose cabbage and current slugs, and other soft bodied and sap-sucking insects. It can be applied to the tenderest foliage, flowers, fruits and vegetables.

Aphine will keep your plants (sweet pea vines, rose bushes,

etc., etc.) in the garden free from insects.

**Aphine** is used by prominent growers as a wash for decorative stock.

Gill, 25c.; half pint, 40c.; pint, 65c.; quart, \$1.00; gallon, \$2.50.

is an oil and sulphur composition three in one, a scalicide, insecticide, and fungicide combined, composed of a high grade of petroleum, and the properties of the well known

fungicide, Fungine. It is a most efficient winter spraying material for San Jose and other scale.

Use one part Scaline to twenty parts water

As a summer spray for hardy trees, shrubs and plants it is an effective remedy against green, black and white fly, red spider, thrips, woolly aphis, cottony maple scale, tulip scale, mealy bug, and all soft scale. Use one part Scaline to forty to fifty parts water.

The sulphur contained in Scaline makes it an excellent preventive against various fungi at all

seasons of the year.

Scaline will rid your evergreens and shrubs of the red spider pest, which has done so much

havor to them recently.

For summer spraying, Scaline is recognized as a marked improvement over the old-fashioned kerosene emulsion; more effective and more economical. It mixes readily with water, contains no sediment, and can be applied with the finest spray nozzle.

Quart, 75c.; gallon, \$1.50; 10 gallons, \$10.00.

is a concentrated sulphur composition, used as a spraying material, readily soluble in water, containing no sediment, and, unlike Bordeaux mixture, and lime and sulphur, does

not stain the foliage, but cleanses it.

It is an infallible remedy for mildew, rust and wilt, affecting flowers, fruits and vegetables, and is used with much success by leading growers on young stock as a preventive against various blights; also against bench fungi. One gallon makes 50 gallons spraying material.

Half pint, 30c.; pint, 50c.; quart, 75c.; gallon, \$2.00.

is a soil sterilizer and vermicide. Destroys cut, wire, eel and grub worms, maggots, root lice and ants. Used one part to four hundred parts water, thoroughly soaking the ground, it will protect your plants and lawns against ravages under the soil.

Gill, 25c.; half pint, 40c.; pints, 65c.; quart, \$1.00; gallon, \$3.00.

These products have the endorsement of leading commercial and private growers, and are generally recognized as standard remedies for the control of the insects and plant diseases for which they are recommended.

For sale by the leading seedsmen throughout the country. If not obtainable in your community, send us your order direct and we will have it shipped to you from our nearest agency.

## phine Manufacturing Co. Agricultural Chemicals

GEO. A. BURNISTON

MADISON, NEW JERSEY

M. C. EBEL

COLUMBIA



# Double-Disc P

HE joy that music brings; the delight and stimulation of hours spent in the realms of the master composers and the supreme interpreters of the world's music.

Whether it is the magnificent vocal art of a famed diva, like Fremstad, singing Isolde's Love Song; or the superb instrumentalism of Ysave, unfolding the magic of his art in Brahms' Hungarian Dance; or whether it is further afield in the lightsome measures of the dance; or whatever it may be—"All the music of all the world" is brought to your home on Columbia Records which play not only on Columbia Grafonolas, but on any standard make of disc talking machine.



Box S494 Woolworth Building, NEW YORK



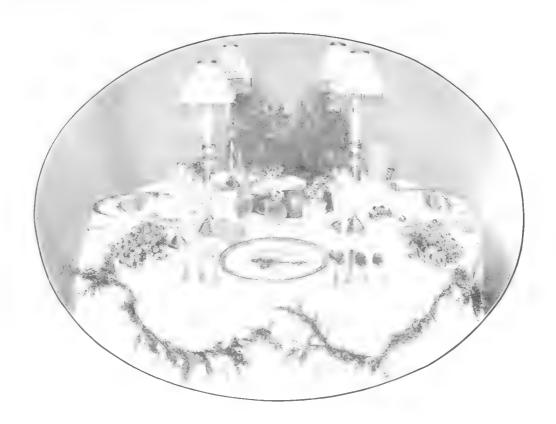
This model Columbia Grafonola \$200

# GARDEN RS' CHRONN LE

OF AMERICA

HORTICULTURAL DIGEST





## Trophies for the Flower Shows

Of course it is not just the expense which is in your mind but the time and consideration you must spend in the choosing of them.

Members of trophy committees find unusual satisfaction in making the selections from our extensive and carefully assembled collection.

Being the largest manufacturers of silverware in the world, and operating a very large number of factories, gives us a distinct advantage in originating artistic trophies in a multitude of different designs and varieties suited to exhibitions and contests of every sort.

Our warerooms also present an exceptionally interesting and extensive assortment of Sterling Silver Pieces and Sets for Weddings and Anniversary presents.

Visit the International Store at your convenience and feel at liberty to view and examine the multitude of Sterling Silver Ware that is shown, without any obligation to purchase.

## International Silver Company

Succeeding The MERIDEN Co. Established 1852

49-51 West 34th St., through to 68-70 West 35th St., New York

Some timely information, that's all-

## The CLEVELAND FLOWER SHOW This Fall

To all Private and Commercial Growers in America:

We extend you a hearty invitation to attend the Cleveland Flower Show, to be held in the Coliseum, Cleveland, November 10th to 14th, 1915, and also invite exhibits from you.

(Signed) Executive Committee, Cleveland Flower Show S. PRENTISS BALDWIN, Chairman

OVER fifty manufacturers and dealers in greenhouse equipment and supplies of all kinds for the grower and retail florist will set up temporary stores in the Cleveland Flower Show. You can see their interesting displays—ask questions—leave your orders for immediate shipment. It will be much easier than calling on fifty widely separated establishments. Read the list:

#### LIST OF EXHIBITORS IN CLEVELAND FLOWER SHOW

Advance Co., Richmond Ind
Africld Paper Boy Co., Cacago, III
II. Bayersdorfer & Co., Philadelphia
Bobbink & Mkins, Ritherford, N. J.
Geo, H. Bowman Co., Clevelard, O.
Phi'ya L. Carbone, Rodon, Mass
Robert Crang Co., Philadelphia
Del. Mare Print & Pub. Co., New York City
Heavy Droer, Inc., Philadelphia
Eagle Wire Works, Cleveland, O.
R. & J. Farophia & Co., Boston, Wrs
Florists' Telegraph Delivery As a
Fowler Mig. Co. (Pot Washers), Clevelard, O.
Graselli Chemical Co., Cleveland, O.
Hitchings & Co., Elizabeth, N. J.
Roman J., Irwin, New York City
D. D. Johnson, Chaogo, III
Kontucky Tolane, Pholonts Co., Lonaville, Ky
Chris Knuth, Euclid, O.

Lion & Co., New York, N. Y.
Lard & Burnham Co., Cleveland and New York
Lard & Burnham Co., Cleveland and New York
Lard & Son, Mentor, O.
Merkel & Son, Mentor, O.
Merkel & Son, Mentor, O.
Merkel & Son, Mentor, O.
Mentor Nurseries, Mentor, O.
Mentor Mentor, Philadelphia,
A. N. Pierson Co., Inc., Cromwell, Conn.
F. R. Pierson Co., Tarrytown, N. Y.
S. S. Pennock-Meehan Co., Philadelphia,
Pletcher & Ledand, Zamsxille, O.
A. L. Randall Co., Chicago, Ill.
R. ed & Keller, New York City.
Chas. Reep. (Concrete Vases), No Ginst d. O.
M. Rice Co., Philadelphia,
Rubard Codar Works, Richmond, Va.
Julius Rochis, Co., Ruthertord, N. J.
Phal they are Representative Dealers and

Rusio & Harling, New York City
Schiepers & Co., New York City,
J. L. Schiller, Toledo, O.
Schloss Bros., New York City,
Sixth City Wire Works, Cliveland
Standard Pump & Engine Co., Cleveland,
Jos Stein & Co., Cleveland,
Storrs & Harrison Co., Painesville, O.
Stumpp & Walter Co., New York, N. Y.
Thermo Fire Maria Co., Cleveland,
Crajini Co., New York City,
Chas H. Totty, Madison, N. J.
B. Hammond Tracy, Wenham, Mass
Vaughan's Seed Store, Chicago-New York,
Zaliph M. Ward & Co., New York City,
Wertheimer Bros., New York City,
Verie Motor Car Co., Cleveland, O.

You will admit that they are Representative Dealers and Manufacturers

## FOR FALL PLANTING



We offer a splendid assortment of herbaceous plants just right for planting now, Phlox, Paconies, Delphiniums, etc., in the best varieties for the hardy border; also rock plants that are hardy and desirable for the Alpine garden or rockery.

## HARDY ROSES

Strong three year, budded plants shipped from pots for immediate planting. We have a big list of the best varieties.

Specimen Evergreens, Shrubs, and nursery stock.

Have you received a copy of our fall catalogue? If not, send us a card and receive one.

A. N. PIERSON, Inc., Cromwell Gardens, Cromwell, Conn.

## **Bulbs for Autumn Planting**



An abundance of beautiful flowers will be the result of planting our high grade bulbs this Autumn.

## DREER'S Autumn Catalogue

is a safe guide in making selections of the best varieties, Hyacinths, Narcissus, Crocus, Iris, Snowdrops, Scillas, etc. It also contains se-

lect lists of Old-fashioned Hardy Plants, Hardy Shrubs and Climbers; Flower, Vegetable and Farm Seeds, Grass Seeds of all kinds, including our Celebrated Lawn Grass Mixtures and a list of requisites for the Garden, Greenhouse and Farm. Write for a copy and please mention this publication.

#### HENRY A. DREER

714-716 Chestnut St.

Philadelphia, Pa.

# barters Bulbs

Tatalahah C., THERE'S OF LORD

KING ALFRED DAFFODIL—the regal aristocrat of the trumpet flowered Narcissi is the most notable variety ever offered to American growers.

If you have not yet received the new Carter Catalog of Bulbs which portrays King Alfred and many other distinguished varieties write for a complimentary copy at once. This handsomely illustrated Bulb Book has only a limited issue.

OUR SPECIAL OFFER—To be able to purchase King Alfred and Sir Francis Drake Narcissi at the prices noted below is an unusual opportunity which is available only for 30 days from date of this issue. King Alfred and Sir Francis Drake grow two feet high and produce enormous trumpet flowers of a rich golden yellow.

Prices-Each 40c.; per doz., \$4.00; per 100, \$28.00.

#### CARTERS TESTED SEEDS, INC.

111 Chamber of Commerce Building, Boston, Mass.
Toronto Montreal Seattle

Branch of James Carter & Co., London, England

"Hardy Perennials are the most satisfactory of all plants because of their permanency and natural beauty."

## PLANT NOW For Spring and Early Summer

PERMANENT Hardy Bulbs and Plants



36 Darwin Tulips, - - \$1.50 grand varieties, 3 of each, named

30 Cottage Tulips, - - \$2.00

75 Tulips - - - - \$1.00

10 Peonies, - - - - \$3.00 White, Pink, Red, each root labeled

6 Hardy Phlox, .85

6 German Iris, .70

## The 6 Collections for \$8.00

All Prepaid

"Gardening Illustrated"
FALL EDITION

56 pages of Hardy Bulbs and Plants. The Best in each class, fully described and illustrated, with directions and suggestions for planting MAILED FREE.

## Vaughan's Seed Store

CHICAGO, 31-33 W. Randolph St. NEW YORK, 43 Barclay Street

## Evergreen Trees

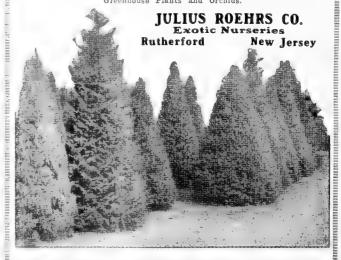
THE REPORT OF THE PROPERTY OF

There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

#### Trees, Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs,
Greenhouse Plants and Orchids.



AND THE PROPERTY OF THE PROPER

## Country Life Exposition

# Chrysanthemum Show

This show, the first of a series of monthly shows and lectures, will be held under the auspices of the

### Country Life Permanent Exposition

Grand Central Terminal Building

(42d St. and Vanderbilt Ave.)

New York City

## November 1-2, 1915

#### PRIZE SCHEDULE

For professional and amateur gardeners.

- Glass 1. Vasc of large flowering curve outhermans, 12 flower—any variety 1st Prize—Four Prece Silver Service 2nd Prize—Silver and Glass Condiment Set
- Class 2. Vase of large flowering clarysantheniums o flowers, any variety
  1st Prize Tea Tray
  2nd Prize Silver Brend Tray
- Class 3. Vase of Figs flowering classanthemnes 3 flowers, any variety 1st Prize Charling Dish 2nd Frize Silver and Glass Chees Dish
- Class 4. Six vases single chrysintheniums, 6 varieties, 6 sprays to varieties 42 Prize 42 Pozen Knives and Firks 2nd Prize Silver Vase.
- Class 5. Three wases of single chrystithemones 3 varieties, 6 sprays to varieties, 18t Prize Percolator, 2nd Prize—Silver Bread Knife.
- Class 6. Six vases purpois, 6 virieties, 6 p avs to vase 1st Prize—Silver Fruit Tray, 2nd Prize—Ice Cream Set.
- Class 7. Three vases pompones, 3 varieties, 6 prays to vio-1st Prize Silver Jewel Case. 2nd Prize—Silver Fruit Set.
- Class 8. Twelve chrysanthemums, 12 distinct varieties stem not to exceed 12 miles, to be shown in single vase 14 Prize—Carling Set 2nd Prize—Chaffing Dish.
- Class 9. Table decoration of chrysanthammums for six covers Caccessories the nished and not to count in making award), table 5 feet in diameter.
  - 1st Prize—Gold Plated Flower Vase. 2nd Prize—Silver and Glass Flower Vase

Note.—The prizes, manufactured by the International Silver Co., are now on exhibit at the Country Life Permanent Exposition.

Trade exhibits are invited, but not for competition.

Charles H. Totty, the recognized authority on chrysanthemum culture, will deliver a lecture on Monday, November 1st, on "The Culture of Hardy Chrysanthemums," at three o'clock in the afternoon.

William Knabe & Company will furnish a musical program each afternoon during the show.

An invitation is extended to members of garden clubs, members of local horticultural societies and all others interested, to attend this show and lecture, which will be free to the public.

Further particulars and schedule may be obtained by applying to Mr. Robert H. Sexton, Country Life Permanent Exposition, Grand Central Terminal Building, New York, N. Y.

Service of the servic

## **BOBBINK & ATKINS**

"World's Choicest Nursery and Greenhouse Products"

You will find our collection of Evergreens, Trees, Shrubs and Plants the most reliable ever offered.

We invite you to come and inspect their quality and see how straight and healthy our trees are grown.

OUR AUTUMN BULB CATALOG is an excellent guide, as to which bulbs you should plant now and a full list of all our Products is found in our ILLUSTRATED GENERAL CATALOG No. 45, mailed upon request.

#### Trees and Shrubs Planted Now Will Be Established in the Spring

We Plan and Plant Grounds and Gardens Everywhere

NURSERYMEN, FLORISTS AND PLANTERS RUTHERFORD, NEW JERSEY

## "TOTTY'S 'MUMS"

It is perfectly natural when you think of 'mums to think of TOTTY. Think of the varieties we have introduced in the past twelve years, and see how many of them are prize winners in exhibitions all over the country this Fall.

For 1916 we shall have the usual number of high-grade novelties—new large flowered, new singles, and new early flowering types.

Be sure your name is on our mailing list, as you cannot afford to be out of date.

#### CHARLES TOTTY

**MADISON** 

N. J.

## **EXHIBITORS!!**

## Use Scheepers' High Quality Bulbs

Exhibition Hyacinths: Exhibition Narcissi Exhibition Tulips

Special Offer to Demonstrate our HIGHER QUALITY

Ten Bulbs each of the forty finest Named Varieties of bulbs

PLANT OR POT NOW

\$15.00

John Scheepers & Co., Inc. No. 2 Stone Street : New York City FLOWERBULB SPECIALISTS



#### LILIUM FORMOSUM

A new type from the Island of Formosa. Pure white flowers, larger than those of L. Harrissii.

First Size Bulbs. 9 to 10 inches in circumference.
Each 20c.; dozen, \$2.00; 100, \$15.00.

Write for illustrated bulb catalogue

W. E. MARSHALL & CO. SEEDS—BULBS—PLANTS

166 West 23rd St.

New York

## BURNETT BROS.

Reliable Bulbs and Roots
FOR FORCING AND OUTDOOR PLANTING

NAMED DUTCH HYACINTHS

State Communication and a state of the statement of the s

Single Varieties for Fercing in Pots and Glasses Selected Mammoth Bulbs True to Name

Amendamin and the many section of the section of th

SELECTED

DUTCH

HYACINTHS

For Bedding and Forcing

Single Named Tulips Special Single Mixed Tulips

DARWIN TULIPS
Single Late or May Flowering. The grandest Tulips in constence

NARCISSUS OR DAFFODILS, All Var's

Hybrid Named Crocus
Mammoth Flowering Sorts
HARDY LILIES
For Outdoor Planting

Bulbs for Wild Garden and Naturalizing

Reliable Flower Seeds Reliable Vegetable Seeds Lawn Grass Seed Garden Tools and Sundrie<sup>5</sup>

Illustrated Catalogue Free

### BURNETT BROTHERS

SEEDSMEN

98 Chambers St. near BROADWAY, New York Telephone: Barclay 6138 We Design and Furnish

# Plans for the Finest Landscape Work

If you are contemplating any extensive park or estate planting communicate with us on your requirements.

Our Nursery is located at Scarborough, N. Y., near the railroad station, comprising over fifty acres, and contains one of the choicest and rarest collections of shrubs and trees in the country. We have been awarded for the last three years, by the Horticultural Society of New York,

FIRST PRIZE FOR THE FINEST AND LARGEST COLLECTION OF HARDY SHRUBS AND TREES.

We will take pleasure in sending our catalogue on request.

#### F. R. PIERSON COMPANY

Main Office and Post Office, Tarrytown, N. Y.

Telephone, Tarrytown 48

## The MacNiff Horticultural Company

54 and 56 Vesey Street, New York

## The Largest Horticultural Auction Rooms in the World

We are in a position to handle consignments of any size, large or small. Prompt remittances made immediately goods are sold

## BODDINGTON'S BULBS BLOOM

Quality the Highest

Ask for Fall Catalog, now ready, containing full list of seasonable Bulbs, Winter Flowering Sweet Peas, Seeds and Sundries for present use.

Arthur T. Boddington Co., Inc. SEEDSMEN

342 West 14th Street, New York City

#### 106 Pages—Full of Helpful Suggestions

The Meehan handbook for 1916 is full of helpful suggestions. In compact, handy form you have a thorough digest of those hardy plants which grow outdoors, completely illustrated.

Collections for various purposes are so arranged that choosing is easy. Any property of one acre or less can be planted from the street front to the small-fruit patch in the rear by combining these collections. It simplifies ordering.

This handbook is free. Write for it today.

#### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65

Germantown, Philadelphia



#### Hicks' Trees Save 10 Years

Buy Hicks' large trees. They produce instant effects. Give shade, shelter, seclusion at once. Can safely ship 1,000 miles.

Every tree guaranteed satisfactory, or cheerfully replaced. You take no risk. Small trees if you want them.

SEND FOR CATALOG AND PRICES Better yet, come to Nursery.

ISAAC HICKS & SON WESTBURY, L. I. Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

## KENNEDY & HUNTER SEEDSMEN

SEND FOR BULB CATALOGUE

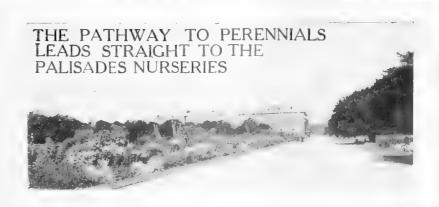
156 West 34th Street One block from New York

"ONLY THE BEST"

A SK for our Special Low offer of Palisades Popular Perennials for present planting and save a whole season's growth.

### Palisades Nurseries, Inc.

R. W. Clucas, Mgr. Sparkill, N. Y.



## The Contents--- October, 1915

	Page		Page
Things and Thoughts of the Garden	441	Convention Trip of Park Superintendents .	460
Growing Scotch Heather in American Gardens		The Drift of Modern Recreation	
By William Anderson		By Edwin B. DeGroot	461
Dictamnus Fraxinella (Gas Plant)		Propagation of Heaths by Cutting	463
Desirable Types of Evergreen Plantings	445	Protecting Birds in Public Parks	
A Giant Marshmallow	446	By J. S. Foster	464
The Castle Garden at Heidelberg	447	Culture of the Exhibition Chrysanthemum .	
Protect the Garden Against Winter Weather .	448	By Ernest Robinson	
Points in the Care of House Plants	449	Directory of National Associations	
Growing Melons Under Glass	449	Directory of Local Societies	
Growing Cucumbers Under Glass	450	Directory of Garden Clubs	468
The African Tamarix	450	Horticultural Events	
Work for the Month of November		Oyster Bay, N. Y., Horticultural Society .	469
By Henry Gibson	451	Menlo Park, Cal., Horticultural Society .	470
Pruning the Shrubbery	452	Nassau County, N. Y., Horticultural Society .	470
French Strawberries and Their Culture	453	Maplewood, N. J., Dahlia Show	470
The Popularity of the Dahlia	454	Short Hills, N. J., Dahlia Show	471
Editorial		The Cleveland Flower Show	471
The Late Samuel Thorne		Chrysanthemum Show in Exposition	471
National Association of Gardeners' Notes .	457 457	New York Spring Flower Show	471
Among the Gardeners  American Association of Park Superintendents	407	Fall Show, New York	471
Notes	458	Chicago's Fall Floral Festival	471



## **NEW SPANISH IRIS**

(Iris Hispanica)

Selected Mother Bulbs for Forcing or Planting Out

Few, if any, of the Irises lend themselves to more artistic arrangement as a cut-flower for the drawing-room or dinner-table.

	16.7	] (+)	1,000
Beauty. I' be leven ber blue	86 (0)	81,50	812 00
British Queen. 15 st early write	25	1.25	(9) (10)
Bronze Queen, Finest terra cotta.	. 25	1.75	-15.00
Cajanus. Phost bright yellow	.25	1.25	9,00
Filifolia. Dark blue with cranz			
ldet to thewers at heast ten da-	~		
eacher to a other varieties .	.50	3,50	30.0 (
King of the Blues. Deep dark bla	300	1.50	12.00
King of the Whites. Pure white	301	1.50	12.00
Leander, Golden vellow .	.30	1.50	12 00
Louise Porcelem-blue	.25	1.25	9,00
Schaterre. Dark blue and vellow	.30	1.50	12.00
Unique. Light the art whit	.35	1.75	15,00

If you intend to exhibit at the 1916 Spring Flower Shows, write us for our catalog of Best Bulbs for Exhibition.

## $S_{tumpp}$ & $W_{alter}$ $C_{o}$ .

30-32 Barclay Street, New York

## GARDENERS' CHRONICLE

#### OF AMERICA

THE OFFICIAL ORGAN OF

THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

OCTOBER, 1915.

No. 10.

## Things and Thoughts of the Garden

By The Onlooker.

Some of the finest of all the annuals of the garden are of the western parts of our own land, notably California and the Northwest Pacific region. Of course, California covers an enormous area, with an almost variety of climates, but in the foot-hills along much of the coast the sight of far-stretching acres of Eschscholtzias, Platystemons, Nemophias, Collinsias, Limnanthes, Lupines, Clarkias, Coreopsis, Mimulus, Godetia, Gilia and similar other things which are native there, is one of the joys of California in March and April.

The question I wish to introduce is, How many of these are hardy enough to come through our Eastern winters? Occasionally one comes on a patch of some annual that has passed through the hardest frosts, and in those cases the plants are of the utmost vigor. The foreman of the Bronx Botanical Garden, New York, was surprised to see lots of Summer Cypress (Kochia tricophylla) coming up last spring in a place where he had not recently sown seeds of it. The explanation was that this Kochia had grown there the previous year. Some years ago I had a surprise in finding Tobaccos coming up strongly in the same spot in which they had flowered the last summer. In this case, however, these were not from seeds but were stems from the thickened, fleshy roots. Under favorable conditions the Tobacco or Nicotiana carries over, although just how long it will continue I do not know. Has any one tested this? With our late spring and early summer so often hot, the hardy annuals don't always have the best chance, and now that the autumn is here again, why not make a practical test of a few kinds at least. The trials superintendents on some of the larger seed grounds might enlighten us, if they would, upon the merits and relative hardiness of many of these annuals. Much depends on the early winter season in regard to how these seedlings will behave and on the amount of protection given. Sweet Peas, for instance, which will frequently come through the hardest weather, are killed if the December is so open that growth continues. On the other hand, if there is sufficient frost to check top-growth, all may be well; the roots don't stop. This makes for the safety of the plants in the following June and July, when they remain satisfactory even in dry times. Wherever autumn sown annuals do succeed in passing through December, January, February they assuredly make bigger plants, provided always that they are not too thickly in the ground. One other point in favor of fall

sowing is that slugs or snails find plenty of other food at this time, whereas in spring the ground is bare of nearly all except the tiny garden seedlings.

Speaking of annuals brings to mind the fact that there is a perennial that is better treated as a biennial, namely Coreopsis grandiflora, one of the most useful of border subjects. Treating it in this way maintains the stock in fullest vigor.

A paragraph in the *National Nurseryman* last month called attention to Senecio clivorum. The plant is, to my mind, one of the handsomest that Mr. Wilson was instrumental in introducing from Western China. But why should the merits of these things be so long in becoming widely known? For several years—I do not remember just how many—this semi-aquatic or bog plant has been making golden patches in many English, Dutch and other European gardens and nurseries, vet here as have the American Agricular Nurscreyman treating its readers to a full description of it. Possibly our Boston confrères, who appear to be miles ahead of most of the rest of the country in matters hortulan (and I can give them that credit gracefully, since I am not one of them) know all about Senecio clivorum, and let us hope that so good a subject will make greater headway now. It does splendidly if planted in colonies at the edge of a pond or stream or lake. Let the planting be so that you can see it, yes, and at half a mile away. Puny lots are not effective. It is not a fit subject for the ordinary hardy border, being too vigorous, some might say coarse. The leaves are as large as those of garden Rhubarb, and a strong plant wants as much room as an ordinary dining table. One of the healthiest patches I have seen was on a made-up island in a lake. Here the Senecio had a good depth of strong, rich soil and found abundance of moisture underneath.

It would seem as though Holland bulbs may be somewhat late in arriving this year, at least the last of But there need be no actual anxiety in that Experiments have shown that Tulips, Narcissus, Crocuses, and possibly some other kinds can be planted well into the New Year and still give fairly satisfactory results. A number of years ago one of the largest London houses planted Crosuses on the twelfth of January and succeeded in getting fine flowers in April and May. The same firm tested Narcissi with

equally good results. Last year a friend of the writer's planted Tulips on the 19th of February, and later in the year reported as follows: "My Tulips bloomed nicely the first week in June, and some in a friend's garden that were planted at the same time but in heavier soil flowered one week later." It is also a common practice of commercial men who know their business to take a chance on buying late batches of bulbs, which can often be had at sacrifice prices in December or even January, and by putting them in flats or shallow boxes, place them away, as is done with the potted stock, under ashes, soil, or fiber in cold frames, allowing them to come along very gradually, and so having them in bloom between Easter and Memorial Day. Last year I set out a large number of Tulips, Darwins and late-flowering sorts, in the last days of November, and although the flowers came when those of some of my neighbors were over, there was nothing to complain of in the quality. From an entry in my diary I see that they were at the height of their glory on the 15th and 16th of May. This is in Long Island, N. Y. But perhaps the record for late planting, coupled with thoroughly successful results, is held by Mr. L. W. Acheson, Pittsfield, Mass., who had splendid flowers of Emperor Narcissus in perfection on the 4th of June last year and the "crop" lasted for some time after that. Mr. Acheson regularly cuts this Narcissus for Memorial Day. All this is certainly very interesting, and also shows, does it not, that our knowledge of just how late planting can actually be done without disaster is very limited. Naturally the weather will always be the governing factor, for the most ardent experimenter would not be rash enough to try to plant any kind of bulb if he had to break the ground with a crowbar or a pick axe! Generally, however, there are open periods even after hard weather in December, and if a little care is taken to cover the ground with flakey manure or with some leaves, the early light frosts will not have penetrated far enough to prevent our purpose.

One of the best long stemmed Tulips for forcing is the variety William Copeland. This is comparatively a new comer, of a taking lavender color. It comes easily and quickly, being in bloom early in February. This is early for a Darwin, such as this is.

While on the matter of bulbs, has any reader tried growing on those that have been forced? Some years ago, while visiting my father-in-law at Christmas, I filled two or three large brown paper bags with Tulips that he had forced for the Christmas market and was throwing away. He had hundreds, or it may be thousands, of them, and I asked whether it would not pay him to save them and plant them out-of-doors, as there was plenty of ground to spare. He thought not, it being better to get a new supply from Holland each season. However, the few I took were planted, just as they were, with their tops cut off clean across the top of the bulb. It was pretty rough treatment to plant out in the cold soil in January, Tulips that had been forced in a temperature of 65 or 70 degrees, and which, moreover, had had all their foliage removed. Nevertheless they made some new roots and developed offsets of sufficient size to carry them over for the next year when a few flowered. They were left where they were and in the second spring from planting they bloomed most brilliantly. These were the double varieties Murillo and Rex Rubrorum. The results were gratifying to me, as experimenter, and surprising to the old gentleman.

Talking of keeping a diary, surely this is one of the most essential things a gardener can have. He is dealing with crops, weather, fertilizers, all that pertains to the living plant, and is apt to forget just what the results of one season were unless he writes things down. This applies particularly to dates of sowing, maturing, flowering, harvesting, and so on. The matter of good or bad color combinations is another thing that requires to be put down in black and white. Experienced elderly men don't require these helps, especially if they have been on a place a long time; but to the beginner or young man the diary is simply invaluable. The difficulty is not to keep a diary but to keep it properly, consistently (could it be a "diary" otherwise?) and sufficiently full. It is not until in after years, when we are called to undertake some considerable and responsible work, such as a drainage scheme, the building of a row of cement frames and pits, the puddling of a pond, the surveying and leveling of ground, or the keeping up of a supply of vegetables for a large family all the year round, that we discovered the weaknesses in our note-taking and wish we had taken pains to be more explicit. It furnishes practice in writing, spelling, and in habit of taking care, without which nothing great has ever been accomplished.

The rock-garden idea is still engaging attention, and indeed as these notes are being read, many a new rock garden is either being planned or is already well under way. All the time one hears of new ones finished or contemplated. Thomas Roland, the successful florist at Nahant, Mass., completed a rockery last spring, one that he is immensely proud of, and which proves that he is just as clever in his outdoor field of gardening as he is under glass. Some time ago W. A. Manda, of South Orange, N. J., read a paper on hardy plants at Boston, and the selection of plants he recommended is worth being reprinted, although it is not, by a very long way, intended to be exhaustive. The list is as follows:

Achillea repens.
Ajuga reptans.
Anemone japonica.
Anemone japonica alba.
Festuca glauca.
Iberis sempervirens
superba.

Aquilegia hybrids.
Linum perenne.
Armeria maritima.
Arrhenatherum bulbosum
Campanula carpatica.
Cer astium tomentosum.
Dianthus plumarius.
Dianthus plumarius albus.

Perhaps in another number of the Chronicle I will add to this list.

Dianthus plumarius

plenus.
Dianthus superbus
(and others)
Dicentra eximia.
Papaver nudicaule.
Phlöx amoena.
Phlöx subulata.
Plumbago Larpentae.
Polemonium caeruleum.
Sedum (several kinds).
Thymus serpyllum.
Viola cornuta.
Dicentra eximea.

Irises (dwarf kinds).

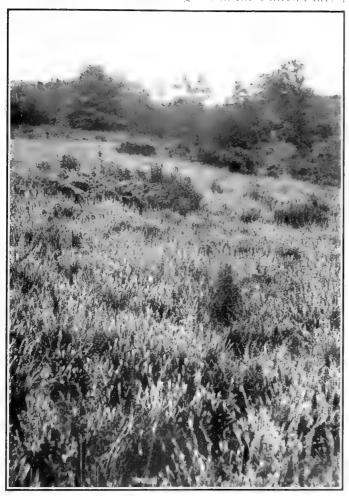
The New York Botanical garden is a highly useful institution, but from a horticultural point of view it would be greatly strengthened if at least one of the larger houses were given over to purely show purposes. Such a house should have a bright display all the year round; in summer, of course, a much quieter exhibit would suffice. A well-kept show house would mean a great deal of labor and attention, but the results in pleasing and educating the public to a better love of gardening would far outweigh any extra cost the upkeep might entail. At present the great city of (Continued on page 400.)

## Growing Scotch Heather In American Gardens

By William Anderson, Mass.

The accompanying illustrations show the Scotch Heather, Calluna vulgaris growing on the estate of Mr. Bayard Thayer, Lancaster, Mass. Over 45,000 plants of Heather have been planted on this estate, and are doing well. With the exception of about 3,000, which were raised from seed, they have all been propagated from cuttings, and planted in their present location under the direction of the writer within the last five years.

Heather is not difficult to grow in the United States,



SCOTCH HEATHER PLANTED IN POSITION INPOSED TO SUN AND NORTHWEST WINDS.

and when planted in fairly moist soil will stand the full sun. A situation should, however, be selected where protection is afforded from sweeping winds in February and March.

Fig. 1 shows Calluna vulgaris, C. vulgaris alba, and Alba var Hammondi planted on a hillside in the full sun, and exposed to sweeping northwest winds. The tops were killed back some last Winter, but started up again in early Spring, and was in full bloom when photographs were taken, September 6. These plants have been growing in their present location for four years. For the first two years the ground was kept cultivated between the plants, but the growth became so thick that this was discontinued, and since then thousands of seedlings are beginning to appear under and between the older plants.

Fig. 2 shows a planting put in two years later and

in a more sheltered location, and which has come through the last two severe winters in good condition.

Fig. 3 shows Calluna vulgaris in an entirely different and more favorable location. It is used as an edging and undergrowth for a bed of Hybrid Rhododendrons. Where the Rhododendrons stand clear of each other it allows room for the use of the Heather underneath, and used in this way is very effective. The plants shown in the picture are growing in moist, rich soil, well protected from cold winds in Winter, and from the midday sun in Summer, and it seems to suit them admirably. The cuttings from which these plants were grown were put in November 1, 1913, and planted in their present location last spring, or just eighteen months later. Although a good many varieties have been tried here, only the three following named kinds have proved to be hardy, C. vulgaris, the common purple Heather; C. Vulgaris alba and Alba Hammondi.

While we have raised the plants from cuttings and seeds I prefer the cuttings; they are more economical to handle than the seedlings, and give less trouble. Cuttings about two inches long should be taken early in November, and put in pans in sharp sand, and if kept in a temperature of 45 degs, to 50 degs., and kept fairly moist, they will callous nicely during the Winter, and begin to make root about March 1. About the middle of May the rooted cuttings can be



SCOTOR BY ATHUR PLANTID IN SHETTER COSTION WHITEMAN AND RESON IS SHEN IN THE THEFT



SCOPER HEATHER COMPLEY A VEGARIST USED AS AN EDGING TOR A SERVICE RHODODENDRONS

planted in a frame three inches apart in a light loam, to which has been added some leaf soil and well rotted manure. Shade the plants during the Summer with slats; this will prevent drying out too much during the hot weather, and the plants will make much better growth. The slats should be removed early in September. During the Winter a mulch of leaves, with some pine or spruce branches to hold them in place, will ensure bringing the plants through the Winter in good condition. In the Spring they will be ready to be planted in their permanent location.

#### DICTAMNUS FRAXINELLA—GAS-PLANT.

This old time garden favorite all too little seen in the gardens of today, but well deserving of a place in every one of them, is a herbaceous perennial with a woody base. Its generic name Dictamnus is a Latin word taken from Dictamnos, an old Greek word, and some say, is supposed to indicate the fact that the foliage of this plant is like that of an ash tree, its specific name Fraxinella, meaning a little ash tree, certainly conveys that idea. This plant grows in strong, upright clumps and reaches a height of three feet, and its abundance of flowers, in one variety white, and in others purple, and rosy-purple, make it one of the most beautiful plants in the hardy herbaceous garden. Indeed, it is attractive to the eye, not only on account of its blooms, but its foliage also is handsome throughout the season and is decidedly and pleasingly lemon scented, and the whole plant emits an oily resinous matter, which in a warm Summer night, if a lighted match be applied, especially right under the flower cluster and close to the main stem, will emit a flash of light, hence the name Gasplant.

It is called Burning-Bush also, because the flowers of the rosy-purple variety in contrast to the plant's dark green foliage appear somewhat like a flame of The name Dittany is from the old English word dytan, which is from the old French dictame. which is from the Latin Dictamnus, which in turn is from the Greek Dictamnos. It has been stated at the

In raising Heather from seeds a soil composed of equal parts of peat loam and sand is most suitable. Sow about February 1 in pans, covering the seed very lightly, and place in a temperature of 55 degs. When the seedlings are large enough to handle they should be pricked off into flats, and grown in a temperature of about 50 degs. About May 20 they can be transplanted into frames, and given the same treatment already recommended for cuttings. Seeds sown February 1, if not pinched, will flower the following Sep-

beginning of this brief monograph that some say that the word Dictamnus is supposed to indicate that the foliage of this plant is like that of an ash tree. Henderson in his "Hand Book of Plants, etc.," and Bailey in the latest edition of his "Standard Cyclopedia of Horticulture," have both made this erroneous statement. Dictamnos, the Greek name, was given to this plant, because it grew in perfection on Mt. Dicte on the island of Crete, Dictamnos being derived from Dicte. As the linguists would say Dict. the root of Dicte plus amnos (meaning belonging to), hence the word Dictamnos, Greek, and Dictamnus Latin, means something (in this case a plant) belonging to Dicte. The word Dictamnus does not therefore, indicate that this plant has leaves like an ash tree, but Fraxinella, the diminutive form of the Latin Fraxinus, an Ash tree, and meaning a little Ash tree does indicate that the foliage of this plant is like that of an Ash tree and in fact it has that form.

Its permanence in the garden is also remarkable "Instances are known," says Johnson, "where Dictamnus Fraxinella has outlived father, son and grandson in the same spot without increase, all attempts at multiplying it, to give away a rooted slip to a newly married member of the family having failed; yet the Fraxinella is easily increased from seed sown as soon as ripe in any common garden soil; they will come up the following Spring." This plant. which has to be three years old before it will flower. is a native from Southeastern Europe to Northern

## Desirable Types of Evergreen Plantings

By H. E. Holden, New York.

The liberal use of the various evergreen species in landscape and ornamental treatment will afford many pleasing contrasts and effects. During winter when little else is left to please the eye they are a positive necessity to any landscape. When judiciously arranged as to their future growth, etc., by which is meant their ultimate height at maturity, they afford a never ending contrast in both form and color when viewed against a background of the various types of deciduous species, the effect being heightened by the general blending of both form and color. When the deciduous forms are reduced to their winter bareness the evergreens afford a happy and pleasing relief. Even when they are covered as they often are with a mantle of snow, the effects thus produced are indeed a pleasing picture.

In boulevard planting or in streets laid out on the parking principle they can be advantageously used singly or in groups in the open spaces in shade tree alignments, or where a parking is carried out in the centre of an avenue or street, they can be planted in conjunction with shrubbery in the various borders, etc., or as individual specimens. The dwarfer forms should be used for this purpose and the shrub plantations carefully pruned from time to

time to prevent them getting out of bounds.

In the choice of varieties it is difficult here to make other than a brief reference, as space will not permit a more lengthy treatment. They may be considered in three classes; the dwarf and medium dwarf forms for more or less restricted planting, such as the Retinosporos, Thuyas, Junipers, Yews, etc., the larger forms, such as Spruce, Pines, Firs, etc., for extensive areas, and those forms particularly adapted to screening hillside covers, etc. Among the former class there is almost an endless form, variety and color, and to those already mentioned may be added several of the dwarf Pines and Spruce, Pinus Mugho, Pinus Cembra, Pinus Koriensis, Picea Gregoriana, Picea Pumilla and Picea Pygmea, etc. They are seen to better advantage in borders or groups and are indispensible when certain effects are desired. Of the other two groups certain types stand out by themselves. In the Pine family mention should be made particularly of the following: Pinus Austriaca, a quick grower and extremely valuable in exposed hilly situations; Pinus Strobus, one of the best under many general conditions. and Pinus Sylvestris, the latter especially suitable for windbreaks. Pinus Excelsa, Pinus Resinosa and Pinus Rigida are also excellent species. Among the Spruces perhaps the Norway Spruce, Abies Excelsa, is the universal favorite. There are several other types, however, much to be preferred, such as the White Spruce, Picea Alba and Oriental Spruce, Picea Orientalis, both being a similar but much better form than Excelsa and very hardy. Particular reference should be made to the following excellent forms; Picea Pungens, Pungens Glauca and Kosteriana, the latter a selected type of the former, and grafted to retain its form and color. Also Abies Engelmanni, Douglasii, Concolor, Nordmanniana and Pectinata, affording a wide range of color and form. Some of these, especially Douglasii, require a deep, open soil to properly develop.

Our ever popular native Hemlock, Tsuga Canadensis, may be considered one of our leading and most useful types. Its general adaptability, graceful form and rapid growth places it in the forefront of the evergreen species. As windbreaks, for screen planting, as individual specimens or grouped with other types and even for hedge

planting where it can be sheared to a dense form, this type is always useful and indeed indispensable. Tsuga Carolinaensis, or Carolina Hemlock, is a distinct form of this variety from the Carolina mountains and an excellent addition of more or less recent introduction.

In exceptional soil conditions where ordinarily few evergreens can be grown at all mention should be made of the following: Pinus Banksiana, especially adapted to dry, loose soil and capable of withstanding extreme drought; Pinus Sylvestris, often used as windbreaks and in sand dune situations to prevent drifting; Pinus Thunbergii in poorest soils; Pinus Flexilis for rocky slopes. For specific data where such extreme planting problems exist excellent and correct information can be readily secured from the United States Forestry Service at Washington.

#### USE AND PLANTING OF EVERGREEN SHRUBS.

It is in this latter type that we have the combined advantage of an evergreen foliage and effect throughout the year, together with a gorgeous and varied coloring during the blooming period. The Hybrid Rhododendron, native Rhododendron and Kalmias, Andromedas, several forms of evergreen Azaleas, etc., etc., form a splendid group, and an exceedingly useful one when certain effects are desired. For Woodland borders or more or less shady situations where little else will be found effective, they are always a welcome addition. It is not necessary as is often thought the case to confine them to such situations. Where the proper borders are prepared and a liberal mulching applied from time to time they can be successfully grown in more or less open situations.

Selection of varieties should be confined insofar as the Rhododendron types are concerned entirely to those known to be hardy in this country, among the best of which may be mentioned the following: Abraham Lincoln, Charles Dickens, Everestianum, Gen. Grant, H. H. Hunnewell, H. W. Sargent, Kettledrum, Lady Armstrong, Mrs. Milner, Purpureum Elegans and Grandiflorum, Roseum Elegans and Grandiflorum, Album Elegans and Grandiflorum, etc. Then, again, there are the Native Rhododendron Maximum and Catawbiense, and also the Native Laurel, Kalmia Latifolia for mass planting in wooded situations where the high coloring of the more expensive Hybrid sorts are not considered necessary. These are collected from their native habitat, and can be purchased at very reasonable prices from leading nurserymen either in car load or smaller lots.

A common error seems to be that the Rhododendron will not stand severe winter conditions. In their native state they are usually found in high and severe altitudes, notably in our own Allegheny ranges and in the Himalavas of Northern India. Briefly a southern exposure should always be avoided, it is the continued freezing and thawing suffered by plants so placed that result in their destruction, not the cold. Most of the suggestions above covering the Coniferous Evergreen species may be applied in like manner to the Evergreen Shrubs. They require a good, rich fibrous loam with a liberal admixture, but not an excessive use of peat, leaf mould or other vegetable humus. Plenty of good, rich top sod, dug into the border, will be found an excellent medium in supplying the needed vegetable humus, but it should be allowed to rot down well before planting is done. Prepare if possible a season ahead of planting. It must especially be remembered that the presence of lime or chalk in the

soil will prove fatal to Rhododendrons and must be avoided.

Border planting is much to be preferred to individual planting, and after the border has been carefully prepared and the plants set out a liberal covering or mulching of leaf mould or partially rotted leaves will serve as an excellent protection and aid. A good watering just after planting and before the mulching is applied to the ground is desirable. Rhododendrons and in fact nearly all of the Evergreen Shrubs carry a very fine root fibre very near the surface of the soil, and a good mulching is therefore essential if the roots are to be protected from the sun and drying winds, and the necessary moisture thus conserved. For this reason also it is especially necessary to avoid any digging of the soil or heavy hoeing of the border after planting. Weeds should be pulled out or destroyed in such a manner as will disturb the soil as little as possible. The writer has personally seen many excellent borders and Rhododendron plantations practically ruined, and in one case in one of our leading park systems through apparent ignorance of this fundamental rule.

Where plantations are made under woody surroundings, or otherwise protected or shaded situations, winter protection, other than the liberal covering of the soil with leaves usually applied in any event, is rarely necessary. Where planted in more open situations (avoid at all times a decided southern exposure) some protection is advisable and necessary. Native Spruce, Cedar or other dense evergreen trees are often cut from the woods and set upright in the soil close together, forming a screen right around the border and serving as an excellent windbreak and shading for the plants. Plenty of leaves added as a covering to the soil will keep it and also the plants in good shape through the most severe weather.

To any one who has had the pleasure of seeing the Hybrid Rhododendrons in bloom in Prospect Park, Brooklyn, not to mention the native types and Kalmias, etc., planted there, the display will afford a lasting recollection and a splendid object lesson of what can be done with this species under very many different conditions and surroundings.

#### A GIANT MARSHMALLOW.

To create a flowering plant whose blossoms measure one foot across, and which is more than three times as large as the original common wild flower found in the vicinity of New York City from which it has been developed, is an achievement of the nursery firm of Bobbink & Atkins. This is the result of over seven years of experimental effort.

"We began," said Mr. F. L. Atkins, "with the wild flower known as the Marshmallow and which at this time of the year covers the New Jersey marshes in wild profusion. We selected the best specimens that could be found, took their pollen and crossed them with the best examples we had of the Hibiscus Coccinea. The next year we took the healthiest specimens of this hybridization and fertilized them from each other. Each year this process has been continued, until about two years ago when we began to see the remarkable results."

On the extensive nursery of this firm there are now whole fields of this giant Marshmallow whose height ranges from six to nine feet, each stem, bearing a multitude of huge blossoms. The colors range from



NEW HYBRID GIANT FLOWERING MARSHMALLOW.

pure white, through the delicate varieties of pink to the deepest crimson. There are flowers of solid color. There are others which are white or pink, with a red centre and others whose variations of shade resemble the Iris. The leaves are of enormous size, are of a rich, glossy green, and in themselves form a unique decorative feature.

The New Hybrid Giant Flowering Marshmallow is the name by which it will henceforth be known.

It is Mr. Atkins' opinion that this flower will give the necessary life and color in the garden and parks from the end of July up to the time of early frost, a period when there is a general dearth of bloom. Each plant is capable of bearing from thirty to fifty blossoms throughout the season, and very little care is required in its cultivation. As one may see from the season of their blooming, very little moisture is required. With the coming frost the stem dies down, and, if cut off close to the ground, the plant being absolutely hardy, needs no protection; and its roots are quite undisturbed, shooting up with renewed vigor the following year.

#### STREET TREES IN NEW YORK CITY.

Professor Laurie D. Cox, landscape engineer of the College of Forestry at Syracuse, N. Y., has just completed a report made as a result of three months' study of street tree conditions in New York City. This study was made upon the invitation of Hon. Cabot Ward of the park department of New York City, and was carried out with the funds given by John D. Rockefeller, Jr. New York City has made no systematic effort to plant its streets with trees, and the report of Professor Cox will outline a practical system of street tree planting, based not only upon the studies of the past Summer, but upon careful investigation of street tree work in such cities as Buffalo, Rochester, Newark, New Haven and Boston.

## The Castle Garden at Heidelberg

The Castle Garden at Heidelberg is particularly interesting from a historic as well as an architectural standpoint. It dates back to the latter part of the sixteenth century, when it was first laid out by Frederick IV., Elector Palatine at Heidelberg. Although the original plan of this garden was made in 1593, the decorative and architectural work was not begun until after 1610, when Frederick V. succeeded his father. In 1612, the ingentious Solomon de Caus von Dieppe, the greatest physicist of his day, came into the services of the king and imme-

garden and of numerous irregular terraces, necessary on account of the hilly nature of the ground, required a great expenditure of time and money. The four principal terraces were partly carved from the solid rock and partly built up with massive arcaded walls. Beneath these are numerous grottos and baths, once gorgeously fitted out and ornamented with curiously carved stones and beautiful statuary of men and beasts disporting themselves in the water. The walls were exquisitely decorated with costly stones, rare shells and variegated corals. Strange



V GROUP OF AMERICAN CONTINES



AN ARTISTIC GROUP OF RARL CONFERS



AN ARAUGARIAN PINE ON THE UPPER LERRAGE



HONLY SUCLED AND INVION THE UPPER TERRACE

diately began extensive operations for beautifying the grounds. De Caus had been in the service of the Prince of Wales and came to Germany thoroughly grounded in the principles underlying the English art of design and taste. He laid out the garden on a purely English style, and on this account it has always been known as the English Garden.

In 1618, Frederick V. married Princess Elizabeth, the daughter of King James I, of England. In her honor the Elizabethan Gate, at the entrance of the garden, and several other decorative structures within were erected. The plan, as designed and in part successfully executed by de Caus, is an emblem of engineering and architectural skill. The construction of massive walls around the

figures of men and women, animals of all kinds, and especially of birds, adorned all parts of the garden. Myriads of artistic fountains and water rushing down over artificial rock and spreading in beautiful cascades as it descended, were conspicuous decorative features. Numerous small ponds, in which trout and other fish were propagated, formed a part of this private pleasure ground. Extensive beds of the rarest flowers thrived here and southern trees of many varieties were grown in artificially protected spots. At one time fully four hundred and fifty orange trees grew in this garden, while figs, lemons, citrons, pomegranates and bay berries also flourished.

In 1619, Frederick V., Elector Palatine, became King

of Bohemia, but a year later he was completely defeated by the Imperial troops in the battle of Weisseberg, near largue, which terminated his short-lived reign. He lost his kingdom and his hereditary estates and became known as the Winter King. The decoration of the garden progressed until de Caus heard of the King's defeat, whereupon he immediately discontinued the work, went to France and was made engineer and architect to the king.

During the Orleanian Wars the garden went to ruin. But as soon as peace was fully established, the grand dukes again gave marked attention to the castle and its surroundings until the reign of Karl Theodor, who forsook the castle forever and removed the last vestiges of ornaments and statues to Mannheim and to the new park at Schweitzingen in Baden. The Duke of Baden's gardens at Schweitzingen thus became the grandest in Germany. The once renowned garden at Heidelberg was now entire-

ly neglected.

About the year 1800, an association for the improvement of the castle and castle garden was organized. In 1804, Grand Duke Karl Frederick authorized Professor Gatterer, of Heidelberg University, to replant the terraces in systematic order for university purposes. Plants from all parts of the globe were secured, rendering the garden particularly rich in exotic species of trees and shrubs. The most interesting group of trees in the garden consists of a collection of rare conifers arranged very artistically on several of the terraces. A long list of the different kinds of American cone-bearing trees could be made, but a few may be named to show the great variety in the plantation. Among the pines are Pinus virginiana, P. strobus, P. ponderosa, P. lambertiana, and P. taeda; among the spruces, Picea rubens and P. canadensis; among the firs, Abies balsamea and A. nobilis; and to these must be added the eastern hemlock, larch, junipers, and the two Sequoias. But the most remarkable trees near by are several fine araucaria pines (Araitearia imbricata) from Chili, which have developed into picturesque forms, with their lower branches resting on the ground. These evergreens add remarkable cheer and afford visitors a glimpse of the gavest season even in the midst of winter, when the surroundings are sere and melancholy.

Superior horticultural skill is manifested throughout the garden. One delights to linger in the dense shade of the trees, whose boughs spread over luxuriant beds of ivy. Here and there among the trees one finds the most solitary recesses naturally contrived for privacy, shade and comfort. Winding walks, occasional statuary, dilapidated grottos and artificial water falls still remain to remind us of the beauty and dignity of this former Eden. From the large terrace one is afforded a perfect view of the famous castle of Heidelberg, which stands in quaint grandeur overlooking the city as well as the valley of the Neckar and the plains of the Rhine.

## PROTECT THE GARDEN AGAINST WINTER WEATHER.

The United States Department of Agriculture gives the following advice regarding the protection of garden plants and shrubs during the winter in suggestions for

'putting the garden to hed.'

Cover hardy perennials, such as peonies, larkspur, holly-hocks, columbines, iris, platycodons, and perennial poppies, with a good coating of manure or other litter to a depth of 3 or 4 inches. In more southern localities this will hold the frost in the ground and keep the plant from alternately freezing and thawing; in more northern regions the manure will protect the plant from freezing to a depth that will cut off its water supply.

As soon as the tops of cannas, dahlias, gladiolus, caladiums and similar plants are killed by frost, dig up the roots or bulbs and store them in a cellar where the temperature will remain at 55 degrees, and should never go below 50 or above 60 degrees. Do not shake any more earth from the clumps of cannas and dahlias than is necessary in removing them from the ground. Place the plants on racks or in slat boxes so the air may circulate freely through them. No frost must reach the roots nor must they become too warm or dry.

Hydrangeas (semi-herbaceous) in the South will last through the winter out-of-doors, if properly cared for. The tops should be protected with straw or brush. This may be held in place about the bushes with a little manure or stones. The flower buds of the hydrangea form in the fall, and this cover will keep them from winter-killing while shielding the bush from winds and sun. In the North hydrangeas must be taken up, planted in tubs and placed in the cellar. This is generally true of latitudes

north of Philadelphia.

As a rule shrubs should not be trimmed in the fall. This process is timely immediately after the blooming period, if this is in the spring, as in the case of the snowball. If the shrubs bloom in the fall, as do some hydrangeas, the rose of Sharon, and some lilacs, they should not be cut directly after blooming, but in the spring of the following year. Lilacs, snowballs, and mock orange should be let alone during the winter, being neither trimmed nor covered with straw and manure.

Almost all kinds of roses are hardy in the vicinities of Washington, D. C., and St. Louis and to the south of a line drawn between these points. From Washington northward local conditions influence the successful cultivation of certain varieties. Some roses, as the briar and rugosa, need no protection, but other varieties, such as the hybrid-perpetuals, teas, and hybrid-teas, need special care, particularly north of the fortieth parallel. Teas and hybrid-teas hardly succeed in Chicago, although the hybrid-perpetuals grow as far north as Canada. All these classes do well on Long Island and in Boston near the sea when proper care is given them. These varieties in the vicinity of Washington need merely a little manure on the ground to prevent alternate freezing and thawing. Farther north, however, they should be treated as follows:

Cut the tops to within 30 inches of the ground. Cover the roots with coarse manure or leaves or similar litter. Hold this in place by evergreen boughs which also acts as a protection. Brush from deciduous trees or shrubs may be substituted for the evergreen boughs except in the most northern regions.

Mounds of earth about six or eight inches in height should be drawn about the base of the rose bushes to keep them from mice. As an added protection against mice, penit the ground to freeze slightly before winter protection is supplied. In fact, roses should not be protected until after the first light freeze.

In the latitude of Philadelphia and farther south climbing roses usually need no protection during the winter unless they are a particularly tender variety. Farther north these roses need protection similar to that given to the tea and hybrid tea roses.

Where it is possible to do so, remove climbing roses from their supports, and cover the branches with a little dirt. A little fall trimming might be desirable to lessen the space occupied by the branches on the ground. Such side branches as are not to be needed for next season's blooming may be cut off. Such cutting off and shortening of the ends as would otherwise be done in the spring, may be done in the fall before covering, merely for convenience.

#### POINTS IN THE CARE OF HOUSE PLANTS.

Owing to the varied requirements of different plants, it is quite impossible to give accurate directions covering even approximately all cases. A few points, however, such as repotting, resting period, and cutting-back should be mentioned, as failure to take these into account frequently leads to unsatisfactory results, or, in some cases, even failure.

Resting Period.—Many plants used in the house, especially bulbous and tuberous-rooted plants, require a period of rest following the growing season. Such plants, e.g., tulips, callas, hyacinths, narcissus, lilies, etc., following the flowering period, should be given the most favorable growing conditions in order to afford the plants an opportunity to replenish the food materials in the bulbs which were utilized during the flowering period. Following this, the water should be withheld and the bulbs allowed to dry and "ripen." Bulbs treated in this way and prevented from shriveling by placement in sand in a cool, dry place, can be used for flowering purposes the following season. Not alone bulbous plants, however, are benefited by such a rest period, but practically all perennial flowering plants whose growth is discontinuous, i.e., those which show a cessation of growth following flower and seed production. Careful observation will readily enable one to determine whether plants should be given a rest period or not. Practically all bulbous plants, as well as tuber begonias, gloxinias, poinsettias, and many others are greatly benefited by a rest period. In order to bring the plants back into active growth, it is only necessary to supply them with sufficient water; ordinarily it is desirable to repot in fresh soil at the beginning of the new growing season.

Cutting Back.—House-grown plants tend to grow slender and weak because of the usually inadequate and unequally distributed light. by cutting back some of the leading shoots, new growths will usually start from below and tend to produce a bushier and sturdier plant. It is precisely in this way that growers obtain stocky potgrown plants, as illustrated by snapdragons, begonias, etc. On the other hand, the removal of all side shoots and buds tends to make the main axis very strong and the remaining flower buds of greater size and better shape, a procedure the results of which are admirably illustrated in the long-stemmed, single-flowered chrysanthemums. The method of cutting back to be used, therefore, depends largely upon the nature of the plants and the effect and results desired. The cutting back or pruning of woody perennial plants, such as roses, presents new problems, but these need not be entered upon here, as few plants of

this class are ordinarily grown in the house. Repotting.—Plants grown in nots for long periods of time finally become "pot-bound," i. e., the roots become crowded, making it necessary to transfer the plants to fresh soil in somewhat larger containers. If the plant with the ball of soil adhering to the roots is removed from the pot by inverting the latter and tapping gently, on a surface, the condition of the plant can be readily determined without injury to the latter. If the roots are plentiful around the outside of the ball or earth it is an indication that repotting is necessary. It should be remembered, however, that it is, generally speaking, not advisable to repot the plants after the flower buds have appeared, as the disturbance is usually sufficient to cause a retardation in the time of flowering as well as stunting the flowers themselves. In these cases it is better to leave the plant undisturbed, and as a substitute for repotting, supply the roots with liquid cow manure, which may be obtained from florists. Beneficial results will be obtained from this fertilizer, whether plants are pot-bound

or not, if applied just prior to the flowering period. In reporting, the plant with the adhering ball of soil should be removed to a somewhat larger pot, the additional space being filled with fresh, rich soil. In general it is advisable to shift plants at shorter intervals into somewhat larger pots rather than into much larger ones at longer intervals. When plants are freshly potted in the fall just before bringing them into the house, it will usually not be necessary to repot before the following spring. The whole matter of repotting is so important that unless one is thoroughly familiar with the details, it is advisable to have it done by a competent florist or to do it under his direction. This is especially true since the method used is different for different plants, involving also the proper choice of soils.

Water.—Perhaps no one factor is so important in the successful growing of plants in the house as is proper watering. Owing, however, to the striking differences Letween the various kinds of plants as regards water requirements, as well as the differences in temperature, soil, humidity, etc., to which plants are subjected in houses, it is practically impossible to give general directions which will be fundamentally helpful. Practical experience alone, it seems, can teach one the proper use of water for house plants. With the exception of certain desert plants, like the cacti, most plants thrive best in a thoroughly moist soil, and are injured by even slight degrees of wilting. It appears, however, that over-watering rather than under-watering is the more frequent cause of failure. While most plants require a thoroughly moist soil, a muddy or water-logged soiled is in most cases distinctly injurious. Such a condition can be effectively avoided by providing ample drainage. But even where flower pots provided with drainage openings are used the common practice of placing the pots in turn in a jardiniere without drainage provisions leads to disaster. As water drains out at the bottom of the pot, it accumulates in the jardiniere, and, if enough is given, may accumulate to such an extent as to more than saturate the soil with water. Where jardinieres or other vessels without drainage facilities are used, great care should be taken to prevent over-watering. It is in all cases better to use shallow under pans, since the latter will overflow before an injurious amount of water accumulates in the soil, as so frequently occurs where jardinieres are used. If the latter are desired, a form provided with shallow under pans and having provision for drainage should be used.

As regards the frequency of watering, again no definite recommendation can be made. Usually it is not necessary to water house plants every day. Best results seem to be obtained by thorough waterings at longer intervals. In this connection it should be remembered that growing plants need a great deal more water than do dormant ones, flowering plants especially requiring large quantities of water for the full development of blossoms. It is further desirable in many plants to spray or even wash the leaves in order to remove dust and soot which so frequently accumulates on the leaves, to the injury of the latter. This practice besides being beneficial greatly improves the appearance of the plants.—From Missouri Botanical Garden Bulletin.

#### GROWING MELONS UNDER GLASS.

Melons are always appreciated. To grow them successfully it is necessary to have a fair amount of heat at command, to encourage free, healthy growth.

Plants are raised by inserting seeds singly in pots filled with loamy soil, to which has been added a little leaf-mold. Plunge the pots in a propagating frame or over a hotbed to facilitate germination, and when the seedlings appear place the pots on a shelf near the glass to encourage sturdy growth. It is beneficial to syringe the plants with tepid water on bright days, and to support the growths with neat stakes as soon as necessary. Do not allow the temperature of the house to fall below 65 degrees at night, and see that the floor and vacant spaces are damped down regularly.

The border in house or pit should be prepared in good time, so that the soil may be warmed through before the

time for planting arrives.

The best material in which to grow melons is good medium loam. A border eighteen inches in width, composed of two layers of four-inch-thick turf, answers admirably. These turves need not be chopped, but mounds of loam, with a little old mushroom-bed material added, should be placed in position in which to plant the young melons. Given a rooting medium of this description melons grow well, and mature a full crop of fruits.

Plant the melons in due course, and water in with tepid water. Conduct the plants to the trellis by means of light stakes, and keep them tied as growth advances. It is preferable to grow each one to a single stem, therefore do not stop the growth until the leader reaches the top of the trellis. Very little air is needed early in the year, but on fine mornings a little may be admitted through the top ventilators when the temperature of the house nears 80 degrees. Close the house early enough to permit the temperature to rise to 90 degrees by sun heat, and if it reaches 100 degrees no harm will be done, provided the atmosphere is charged with moisture.

When the plants are in flower it is advisable to maintain a light, buoyant atmosphere in the morning to facilitate fertilization, but the afternoon syringing may still be continued. Polinate the female blooms at midday, and endeavor to "set" three fruits on a plant at the same time. Keep the laterals pinched at the first leaf beyond the fruit, and laterals that do not bear fruit should not be allowed to proceed beyond the second leaf.

When the fruits commence to swell feed the plants with a good concentrated fertilizer and weak liquid manure may be given with advantage. Never allow the

plants to suffer from lack of water.

Support the fruits with nets when necessary, and guard against insect pests. As the melons near maturity less water is needed, for if given freely some of the fruits may split; also allow rather more ventilation, so that the best flavor may be produced.

If the weather should be dull and wet at the time the crop is ripening, maintain a genial warmth in the pipes.

#### GROWING CUCUMBERS UNDER GLASS.

Heat and moisture are the chief points in culture. One wants atmospheric moisture in all parts of the house or frame, not merely at the roots. Our large growers, who get such large quantities of these fruits, grow the plants in very high temperatures. give scarcely any ventilation, and, of course, shade the plants from strong sun. By this mode of culture there are rapid growth and no disease. Cold draughts are avoided and heat used freely; indeed, if a house runs up to 100 degrees they trouble little, but give more moisture and shade. One cannot expect Cucumbers to do so well in frames as in houses. There must be warmth to be successful. It often happens that the plants in frames get none too much attention after a certain point, and if allowed to run wild there will be poor fruit.

Stopping and feeding must be done regularly—at least once a week—and plants given new surface soil—say, monthly at least—to encourage surface-roots.

If new wood be not made there are no fruits. It is a safe plan to cut away—say, about every ten days—a portion of the old wood, and lay in the young shoots to take its place. When these are stopped—that is, the points pinched out—embryo fruits appear, and these soon mature.

Over-cropping is a fatal fault. The plants in a young state make so much growth that each joint shows two fruits. These are often left, and the cultivator points with pride to the crop of grand fruit. What is the result? The plants, not having had time to form many roots, are overstrained and unable to perfect the crop. The remedy is to remove a large number of the young fruits as soon as they show. only allowing one fruit to remain to at least 6 inches of growth, and cut when young, as if left they impoverish the plant. Few plants need more food than the Cucumber in a healthy state. The plant does not like great masses of soil at the roots. When starting it is far better to add soil, say, every three weeks, and if at all heavy make it light and porous. The plants like a light free soil, adding such aids as bone-meal freely when top-dressing, and to lighten heavy soils old spent Mushroom-manure is excellent; indeed, too heavy manures are bad. Give food liberally in the way of liquid-manures, and there is none better than cow or sheep-manure with soot added. It is useless to advise fertilizers, there are so many, but use them with care.—Gardening.

#### AFRICAN TAMARIX.

Of all exotics introduced into the United States, the one here named lends itself to cultivation in greater variety of soil and climate than any other of which we have any knowledge. It is equally at home whether it be in the Atlantic Coast States, the desert sections of the great Southwest, or the more salubrious regions of the Pacific Coast. It is found growing at altitudes of 6,000 feet, and in the depression on the face of the earth 200 feet below sea level. The hot blasts of air from the desert does not affect the foliage, nor does a zero temperature injure the branches. It is usually grown as a shrub, often used for a hedge, vet it is a fact that if grown to a single stem, it will attain to the dimensions of a good-sized tree. The light green, feathery foliage is decidious, and that too at a season of the year when sunshine is desired, even in California. The flowers are light pink, very small, borne in spikelets an inch or two long in early spring, and in such profusion that they give to the plant or tree the appearance of a large bouquet.

It is propagated from cuttings, which root more readily than those of the willow, which accounts for its wide dissemination, over hill and plain, on the mountain and in the valley, wherever a man or woman is found who has a love for trees and plants. If it is intended for a shrub, it should be severely cut back every season immediately after the flowers begin to fade, since it is on the growth of the previous season that the blossoms appear.

There are several species of Tamarix, one of which is so densely umbrageous that the branches, when in full foliage, look like huge, green colored ostrich plumes, another blooms during the summer months, but all of them, regardless of their name or nativity, are drouth resistant, and if the owners of the sandy wind-swept plains east of Ontario were to use this subject for a wind break instead of Eucalypts, much of the damage done to the vineyards by sand storms would be prevented, and the landscape wear a more beautiful appearance than it does at present.

There is some confusion in nomenclature of species, which is to be corrected by the Bureau of Plant Industry, and by Bailey in his new work.—Pacific Garden.

## Work for the Month of November

Conducted by Henry Gibson, New York.

The planting of hardy bulbs for spring blooming may be continued so long as the weather remains open, but the sooner this work is completed now the better. No one likes to break up a couple of inches of frozen earth, previous to setting out these bulbs, yet it is what may be

expected if planting is delayed too long.

Planting completed, the garden should receive its annual clean-up. The hardy border is long since past its usefulness for this season, and deciduous trees are shedding their leaves fast. In large gardens where many such trees are accommodated it is always a relief to the gardener when the last of the leaves are down. The leaves should be gathered up as free from sticks and stones as possible for future use. Oak and beech leaves are the best kinds to use in preparing leafmould for potting purposes. Elder, chestnut and maple leaves should be thrown on the rubbish heap and burned. Of course a few of these mixed among a bulk of others would do no harm, in fact when properly decomposed we are of the opinion that all leaves contain valuable plant food. Any ill effects upon plants from the use of leaves in the growing medium, is caused by the varying degrees of acidity found in leaves in different stages of decomposition. Experiments have been conducted which left no doubt as to the injurious effect of acids produced by leaves only partially decomposed upon plant life.

#### THE WILD GARDEN.

The work of cleaning up in and around the wild garden should not be overlooked. When the leaves from the trees accumulate in bulk they are liable to injure many dwarf plants that are growing therein. Wild gardening is becoming very popular now, and as it may be described as a cheap form of gardening it is likely to become more

popular still.

While it is somewhat late to do much actual planting save, perhaps, bulbs in this department; yet notes of additions in the way of trees and shrubs can be made for future reference. Straight lines should always be avoided, and every effort taken to avoid a stiff, formal appearance, when planting is being done. Footpaths may be made now, and these should be irregular and winding. A charming path may be made by using irregular-shaped stones. Too much importance should not be attached to making them fit in evenly, and the spaces between them may be filled in with soil and planted with small alpines. Unshaded positions may be planted with rambler roses of the Dorothy Perkins class. They may be purchased in a variety of shades, and if allowed to trail at will about the ground they will provide a glorious carpet of color when in bloom. Tree stumps, or inverted tree roots can be used to support roses of the Penyance hybrid type. Forgetmenots (Myosotis) are perhaps one of the prettiest plants we have for beautifying the woodland walk. Other parts of the wild garden can be beautified by planting therein large patches of bulbs. It is better to mass them in groups of separate colors, that will attract attention.

#### VEGETABLE GARDEN.

The annual clean-up should be extended to the vegetable garden as soon as opportunity offers, so as to have the ground manured and ploughed or dug up and left to the disentegrating influence of frost and snow. All vegetable matter should be started together for future

use. In this age of motor traffic there is likely to be a scarcity of animal manure and although chemical manures may be largely used as a substitute they do not provide the humus necessary for the successful cultivation of plant life.

Decayed vegetable matter is an excellent fertilizer, and if its true value was more generally recognized very little of it would find its way onto the rubbish heap. All kinds of spent plants, fallen leaves, and even the lawn mowings may be brought into use. They should be stacked deeply in an out of the way corner, and be turned and restacked to hasten decomposition. A light sprinkling of superphosphate of lime may be given at intervals while the work of restacking is in progress. After several turnings the heap may be covered with soil, and when thorough decomposition has taken place it will be found equal to the best animal manure.

Celery, carrots, beets and all other crops not yet stored should be attended to as soon as possible.

Lettuce in frames will need care in ventilation, water thoroughly when needed and stirring of the surface soil at intervals.

Asparagus, rhubarb and chicory can now be forced. Chicory is known as the Christmas salad, and is much in demand during the winter months. Various methods are adopted in forcing it, and our own practice is to plant the crowns six inches deep in good loam under the carnation house bench. Three or four dozen crowns are planted at one time, and at frequent intervals to keep up a succession. When lifted from the garden the outer leaves are cleansed off and only the central portion left intact. The roots are then stacked in layers of sand in a cool cellar and used as needed for forcing.

Parsley should be protected, and some lifted and planted indoors for winter use if not already done. Mint and other herbs may be potted for winter use.

The planting of fruit trees should be finished as soon as possible.

#### THE GREENHOUSES.

The Chrysanthenum season is now in full swing, and the local shows will commence in a few days. Year by year the single-flowered decorative varieties are becoming more popular for conservatory and house decoration, and fortunately skilled hybriders and large growers have turned their attention to the improvement of these types, and many desirable new varieties may be expected at the shows this month. The atmosphere of the flowering house now requires to be cool and dry, firing and ventilation being regulated with this end in view. All watering should be done early in the morning so as to leave the floors and benches dry over night. Flowers cut early in the morning last the longest.

#### SCARBOROUGH LILIES.

Valotta purpurea, or the Scarborough Lily, is a perfect plant for pot culture, and cannot fail to give satisfaction when well grown. It is one of the best of Autumn bloomers. A three-inch pot is large enough for a single root; and no shift is made until it is completely full of rootlets, when a pot only one size larger is needed. The great essential in the culture of the Scarborough Lily is to leave it undisturbed and not interfere with the roots until the plant has grown larger than desired, when it may

be divided. In planting the tops the bulbs should be on a level with the surface of the soil. During winter very little water is needed, and the plants must be kept in a greenhouse, or room, in a light position, and are protected from actual frost. One feature of the Scarborough Lily is that it is evergreen, and curiously enough it is one of the relatively few plants that refuses to hybridize.

#### WINTER FLOWERING GERANIUMS,

Geraniums intended for winter flowering should now be in 5 or 6-inch pots. The flower spikes should not be allowed to develop until the chrysanthemums are partially over. A shelf fixed up in a light position in carnation house where the atmosphere is fairly dry suits them very well.

If the crop of flowers is wanted from Thanksgiving on to the beginning of the new year no more pinching of the buds should be done after the advent of November. Feeding should be done regularly once the pots are well filled with roots. Liquid cow-manure is not to be recommended for these geraniums as a soft rank growth, and but few flowers will result. We find Clay's fertilizer applied as a top dressing is more conducive to the production surface roots, and short jointed, stocky growth that flowers profusely during the winter months.

#### THE EARLY VINERY.

December first is the earliest practical date for starting the early vines into growth; and the house should be thoroughly cleaned and renovated in readiness for a start away at that time. When the leaves have fallen prune the laterals back to two eyes. Fancy canes that have not reached the limit of their allotted space, may be allowed an extension of several feet. It is a good practice to anticipate the future bleeding of the vines, and dress all cuts with some styptic. The condition of the vines during the past season will be a determining factor as to what cleaning they will require. If they were clear of mealy bug, red spider, etc., little cleaning will be necessary. If on the other hand they were badly infested with these pests, every bit of loose bark should be removed, to expose their hiding places, and make it easier for the winter wash to do its work. As an ordinary preventive winter wash (lishurst's compound is effective, and the vines may be gone over several times if necessary.

The border should be attended to, and any mulching material removed carefully. If no surface roots are visible an inch or so of the soil can be removed, and replaced with fresh loam.

Young vines not having the soil extended to the limit may have an addition, if they have thoroughly permeated what they have with roots.

Keep the house as cool as possible from now until starting time. Even a little frost would not be harmful provided it did not enter the border.

#### PRUNING THE SHRUBBERY.

Shrubs may in general be divided into two classes, those blossoming in the spring as a result of blossom buds formed the previous summer, and those blossoming in the fall, as a result of blossom buds formed on new shoots of the same season. Examples of the first class are the lilacs, forsythias, spiraeas, Japanese quince, flowering currant, etc.; of the second, hydrangea, hibiscus, syringa or mock orange, privet and snowberry.

It will readily be seen that to prune spiraeas, lilacs and other spring blooming shrubs while they are dormant would mean the removal of many potential blossoms. For this reason shrubs of this class are not pruned until after the flowering season has passed. At

that time an effort should be made to remove old flowers before they go to seed, as in the case of the lilac, and to head back the straggling shoots as well as remove crowding ones. In the case of Spiraea Thunbergii, scarcely any pruning will be advisable, even at that time, but the Van Houttei should suffer the removal of about half of the canes which have blossomed.

In the dormant state, a shrub, like the Spiraea Van Houttei so much used for the sake of the wreaths of white blossoms, will appear much taller than it will when loaded down with the summer burden of flowers, and while one may feel tempted to cut back the straggling ends of the branches in the spring, yet he finds himself rewarded for not doing so until the summer when he will usually determine on the method of thinning away entire branches rather than heading them back.

Especially where shrubbery is massed in group plantings, and it should preferably always be used that way, does it seem foolish to try and limit the height of the planting in the early spring, and introduce a horizontal or unbroken sky line. To be sure, every one is entitled to his own opinion as to the most pleasing form and height for a shrubbery bed, but if nature were permitted to build her own graceful outlines, and run some shoots up higher than others, the effect would be more pleasing to the eye than where a hedge formation was made the uniform rule. Usually the healthiest wood on the shrub is that at the tips of the branches, but if these are constantly cut back, the shrubs assume a thick top, which in the case of many shrubs is not as desirable as the more natural form when pruning is made to consist of the removal of entire branches which have become old and have served their purpose.

In the case of the hydrangea, and other fall blooming shrubs, however, a heading back in the spring becomes a very desirable practice. There are more buds in the spring than the plant can make good use of, since each one represents a potential shoot which will, if allowed, grow out for a considerable length, and bear as many flowers as the plant is capable of supporting. Accordingly, the limiting factor as to the number of blossoms becomes not, as in the case of the spiraea, the number of buds left intact in the spring, but the vitality of the summer's growth as depending on the soil fertility. By removing one-half or more of the wood of last year's growth on each branch, the strength of the shrub will be confined to a few flowering shoots, with the result that the plant will be kept within reasonable bounds, and a larger size will be attained by the fewer blossom panicles that result.

It goes without saying that decayed stubs should be removed as soon as seen, and their occurrence should be prevented by proper handling of the pruning shears when the wound is first made. If the cut is made to occur at a point immediately above a lateral branch or bud, sap will be drawn up into this branch or bud and the wound will heal over, but if, on the other hand, the cut is made some distance away from any lateral branch or bud, there will be nothing to necessitate a flow of sap in the region of the wound, and the tissue will die back.—*Exchange*.

Send your subscription (\$1.50 a year) to THE CHRONICLE PRESS, Inc., Publishers The Gardeners' Chronicle of America 286 Fifth Avenue, New York

## French Strawberries and Their Culture

By Edward Connor, England.

The fraise or strawberry ranks amongst the most highly prized fruits in France. It has attained its present preeminence by the ease with which varieties can be crossed by intelligent gardeners; although the varieties grown to-day are legion, they are only "modifications" of half a dozen specific types. The greater care devoted to the cultivation of the fruit of late years has not only brought about a prolonged period of flowering, but it has largely contributed in increasing the size and improving the popular fruit. Strawberries in France are divided into two well recognized classes—the small familiarly known as fraises de quatre-saisons, and the large or grosses fraises. These differ not only in appearance and quality, but in the way in which they are grown. Whereas the small variety is produced from seed, the large variety is cultivated from the stolons or runners of varieties raised from F. Virginia and from F. chilocusis. Strange to say, although the wild variety originated from Greece, classical authors make no allusion to the fact. The aim of growers of strawberries known as Fraises de Quatre-Saisons is to produce a fruit simultaneously large, of a tapering shape, and of a deep red color. In order to obtain the seed from which this kind of strawberry is cultivated, fruits are selected when perfectly ripe and excellent in every other respect; these are crushed with great care and the seeds separated from the pulp, the seeds are next washed and the pulp strained through a cloth. The seed is then collected and left to dry in an airy and shady spot. This seed can be sown in the open air in May and June on a specially prepared plot of ground, but the plants from such seeds are not considered as good as those resulting from seed sown at the end of the month of March or at the beginning of April on a hot-bed. The seed is lightly covered over with leafmould, and air admitted gradually as soon as the plants make their appearance. When the plants begin to throw out a few leaves they are dibbled out in September in tufts of two together, 6 inches apart, and from 12 to 20 inches asunder, on the permanent bed, the soil of which ought to be sandy and fresh, and the spaces between the plants covered with a mulch of short manure. Some growers make a new bed in another place, but do not apply fresh soil. Following the period of planting, the strawberry plants will commence bearing fruit in the second spring or autumn. It is considered well to dibble out the plants from the main stools at a distance of 2 feet apart every two or three years, otherwise it will be found that the plants will quickly degenerate. French growers are careful to avoid employing mould from old mushroom beds, as this tends to redden the leaves, and kills the plants in the end. The subsequent culture is very light and easy, consisting in water being frequently and moderately applied during the period of fruiting and all beds freed from weeds, useless runners and decayed leaves.

Strawberries are procurable so early in the spring that forcing the plants is regarded in France as rather an ornamental than a commercial matter. Plants for forcing are those belonging to the large-fruited varieties, and these are grown in pots filled with good loam. A rich, friable soil, consisting of silicious sand, clay, oxide of iron, and carbonate of lime is that most suitable for strawberry culture and that resorted to in France. The pots are brought indoors or under cover in October and December; forcing commences at a temperature of 55 degrees Fahr, gradually rising to 75 degrees. Gardeners can grow as many varieties of strawberries as they like,

giving each kind a fancy name by way of adding attraction. Varieties having no runners, such as the Gaillon, are naturally good and very suitable for out-door culture. White strawberries are not prized in France, at least, as a rule. The English types have exercised a great influence upon those of France; this remark particularly applies to what are known as the "British Queen," "Keen's Seedling," and "Deptford Pine" varieties. For forcing purposes, the kind of strawberry called "Le Docteur Morère" is in great demand in France; its fruit is large, rose-colored, scented and sugary. The "May Queen" is precocious and prolific, its color is a deep red, and its quality good. The "Margaret Lebreton" suits all lands, is fertile and of remarkable precocity. The "Victoria" is further described by French growers as being a good variety, suitable for poor soil, scented, juicy, yielding well and exacting no special care. All the large-fruited varieties are descendants from the F. Virginia, a native of the United States, and the F. Chiloensis, from the Chilian Archipelago.

The earliest open-air crop of French strawberries comes from Carpentras, in the Department of the Vaucluse, about the last week in April, the supply continuing

till the middle of June.

In the same Department (the Vaucluse) mineral manures were tried a few years ago on strawberries by way of experiment, on the proposition of the then Minister of Agriculture. The result did not come up to expectations. It was found that nitrate of potash, applied in small doses, stimulated the plant too much while destroying the beauty of the fruit.

The finest strawberries for the Paris markets are grown in the Valley of the Durance—once a waste and

arid region.

Strawberries are rich in malic acid and sugar, accord-

ing to eminent chemists.

In France, strawberries—which are said to prolong life—are eaten with red wine, sugar, or sprinkled over with liqueurs, rum, Kirsch, orange-juice or even sugared water. Strange to say, strawberries and cream are not very popular with the French, because this mixture is considered very indigestible. The same objection stands good for white strawberries, which are only fit to eat, according to the French, when freely mixed with the small, deep-red and sugary variety known as "Quatre-Saisons."

Hot water as a substitute for hot houses in forcing early fruit is the latest discovery announced by the National Horticultural Society of France. Results have been published of the experiments of M. Bultel, a prominent horticulturist. He treated 100 strawberry plants for six hours a day with hot water during January and February, and they yielded 722 strawberries up to March 25, while a similar number of plants kept in a hot house yielded only 477 strawberries.

This new method of forcing can be applied to other kinds of fruit. It is very much cheaper, and gives a

greater yield than hot-house forcing.

Miss Gardener: "Can you name this remarkable flower for me?"

Botanist: "It appears to me to be one of the species of the wild flower known as ———."

Miss Gardener (interrupting): "Oh! It is not wild, it has been growing tame in my garden for several years."

## The Popularity of the Dahlia

The increasing popularity of the Dahlia as a favorite flower for the garden was again confirmed by the interest manifested in the first annual show of the American Dahlia Society which was held in the American Museum of Natural History, New York, September 24-25-26. The value of the dahlia as a decorative flower was prominently featured at this show although the displays of individual varieties were never before equalled at a Dahlia show in this country.

While the commercial growers were more prominently identified with the exhibition than the private growers, it may be expected that in another year greater interest will be shown by the private gardener

and amateur in competitive classes.

W. Atlee Burpee & Company, who won the gold medal for the best general display, and R. Vincent, Jr., & Sons Company, who won the silver medal, had splendid collections of many varieties. The especially fine cactus varieties introduced by W. A. Manda within the last year or two, attracted general attention and much favorable comment. John Scheepers & Company, Inc., also contributed a fine collection of seedling cactus dahlias.

Among the private growers who carried off honors were: E. M. Townsend (James Duthie, gardener), Oyster Bay, N. Y.; Mrs. H. Darlington (P. W. Popp, gardener), Mamaroneck, N. Y.; William Shillaber (J. P. Sorenson, gardener), Essex Fells, N. J.; William J. Matheson (James Kirby, gardener), Huntington, N. Y.; Arthur Daly, New York; Mrs. Eleanor F. Fullerton, Medford, N. Y.; Miss Elizabeth Morehouse, Fairfield, Conn.; Mrs. C. A. Stout, Short Hills, N. J.; John F. Anderson, Bernardsville, N. J.; Mrs. E. T. Barrell, Plainfield, N. J. Special prizes were awarded to Bobbink & Atkins and George Stillman for meritorious exhibits.

Judging by current reports many of the Dahlia

shows throughout the country were no less patronized than the important show held in New York, and at many of these community shows there was much friendly rivalry in the competition between professional and amateur growers.

It was no uncommon sight at some of these shows to see men and women passing along the long rows of exhibits, note-book in hand taking notes of the different varieties that appealed to them from which to make selections later to add to their garden collections. With the many hundred varieties exhibited at some of the shows these enthusiasts, no doubt, found much to occupy their time.

As the cultivation of the Dahlia is no difficult task, requiring little more than ordinary care to produce some of the fine blooms seen at the shows, it is not to be wondered that the Dahlia has become such a favorite among garden lovers.

Of the several novelties here illustrated, the introducer, W. A. Manda, says that the Dahlia Mrs. Alfred I. Dupont, is one of the most extraordinary varieties in cultivation. Of good habit it will begin flowering early in the season and continue until frost. Its foliage is of a luxuriant growth, with stems strong and upright, two feet in length, supporting an extraordinary large flower perfectly double. Its color is of the brightest ruby red, showing scarlet under artificial light. It has several times been judged as the best decorative dahlia at important shows.

Another 1915 introduction of Mr. Manda's, the Dahlia Albert Manda, is said to be the largest flowering Dahlia in cultivation, with fine green foliage and stout stems terminating in extraordinary flowers nearly a foot in diameter, of beautiful shades of lemon, white and pink, varying according to season and situation.

The Dahlia Gertrude Manda is a fine grower, with long stems and medium size, but beautifully formed flowers of a peach blow shade of color.



DISPLAY AT THE AMERICAN MUSEUM OF NATURAL HISTORY SHOW, NEW YORK, SHOWING TO WHAT EXTENT THE DAHLIA CAN BE EMPLOYED FOR DECORATIVE PURPOSES. RICHARD VINCENT, JR., FIRST PRESIDENT OF THE AMERICAN DAHLIA SOCIETY, IS SEEN IN THE PHOTOGRAPH.

In the October issue of the Chronicle we naturally look for some comments on Dahlias. This having been a first class summer for Dahlia culture many more people have determined to grow them another season. Truly it is one of the great flowers of all time, and although it may at times go under a cloud for a period that can never last long. With the establishment of the American Dahlia Society and the holding of shows by this body, as well as by the now numerous other societies that make a feature of Dahlias, the time has arrived when an authoritative promulgation on the classification of the flowers should be made. In addition, the A. D. S. ought to publish lists of what are generally regarded as the best varieties, this to be in addition to, or apart from, any election that any of the floricultural papers might attempt. There is always a lot of fun in trying to name what one believes to be the best twelve or twenty kinds of any of the more popular flowers. Here is my vote for the best six Dahlias for general use:



DAHLIA, MRS ALTRED I DUPONT

Delice, Jack Rose, Souv. de Gustave Douzan, Minnie McCullough, Hortulanus Fiet, Princess Juliana.

The only one I have any qualms about in the foregoing is Douzan. It is a big, coarse Dahlia as a rule, but it is one that is very widely grown, is showy and vigorous, and a good, large flowered scarlet. To extend this to twelve let us add the following six:

Geisha, Perle de Lyon, Etandard de Lyon, Mrs. A. I. du Pont, Sebastopal, Ethel Maule.

My own particular fancy leans much to the show and decorative kinds; the cactus ones are also desirable and good for a variety of uses including cutting and garden decoration. Among other fine Dahlias not already mentioned are these:

Arabella, Dorothy Peacock, Beliot, Ethel Maule, Master Carl, Papa Charmet, Rhinekonig, Queen Mary, Kriemhilde, Orange King, Cuban Giant, Golden Gate, Grand Duc Alexis, Chas. Lanier, Kalif, Dreer's White, J. B. Riding, Snowclad, Hilda Searle, Triomphe de Solferino, Rosalie, Little Beauty, Crimson Beauty.

If I were choosing six cactus Dahlias for exhibition the list would be this:

H. H. Thomas, Rev. T. W. Jameson, Yellow Hammer, Mrs. T. G. Baker, Snowdon, H. W. Sillem.

Most likely, however, by another year we shall have more reliable lists than these, although, after all, Dahlias differ on different soils and in different locali-



DAHLIA, ALFRED MANDA.

ties or sections, so that the best that can be attempted at any time is to name those that do best over the widest territory and which are oftenest in high condition. That has been the guide in drawing up the foregoing. —The Onlooker.



DAHLIA, GERTRUDE MANDA.

THE

## GARDENERS' CHRONICLE

OF AMERICA.

Published by

#### THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK MARTIN C. EBEL. Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Foreign, \$2.00

Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

Published on the 10th of each month, Advertising forms close on the 1st preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All edited matter theulet by addressed to M. C. Ebel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### ASSOCIATION OF GARDENERS NATIONAL

President. J. W. EVERITT, Glen Cove, N. Y.

. e-President W. S. RENNIE, Ross, Cal.

JAMES STUART, Mamaror eck., N. Y.

Secretary, MARTIN C. EBEL, Madison, N. J.

TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Ogontz, Pa.; Wm. Turner, Mendham, N. J.; Geo. W. Hess, Washington, D. C.; John H. Dodds, Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1916—Thoms W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.
To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wim. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.
To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; Wilham N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President, FMIL T. MISCHII, Portland, Ore.

ROLAND W. COTTERILL, Seattle, Wash.

J. W. THOMPSON, Seattle, Wash. JOHN F. WALSH, New York, N. Y.

Lice-Presidents. ALEX. STUART, Ottawa, Ont. E. P. GRIFFIN

L. P. JENSEN, St. Louis, Mo. EUG, V. GOEBEL Grand Rapids, M

Vol. XIX.

OCTOBER, 1915.

No. 10.

The results obtained through the campaign to promote the Cleveland Flower Show testify to the general optimism pervading the horticultural trade over the promising business outlook. The success of such a show is entirely dependent upon the willingness of the trade to participate in it, and business men are naturally influenced by prevailing conditions in their consideration of expenditures such as are demanded for flower show pur-

The reports of the success encountered by other managements of important shows to be held this Fall and the coming Spring, are no less promising than of the show first referred to, and this is all of considerable consequence to those engaged in the pursuit of horticulture as indicating that interest is not waning, but is increasing in this country towards horticulture in general. It is claimed by some firms catering primarily to ornamental horticulture that business has been better with them during the past year, while the terrific war has been waging through Europe, than heretofore.

Out-door gardening is approaching the close of its season, but this is no reason why gardening shall be abandoned until warm weather reappears, for, with our modern cold-frames and "toy" greenhouses, which are within reach of those even of moderate circumstances, gardening can now be indulged in for twelve months of the vear.

To those not already familiar with what can be accomplished with the aid of cold-frames or small houses, we recommend a careful investigation, for, besides the genuine pleasure derived from in-door growing, they will find themselves well repaid for the small outlay incurred in the luxuries they may enjoy from fresh vegetables throughout the Winter, besides an abundance of flowers that can be forced even in a small space.

#### THE LATE SAMUEL THORNE.

At a regular meeting of the New York Florists' Club held in their rooms on Monday, October 11, 1915, the following resolution was adopted:

Resolved, That the New York Florists' Club have heard with the deepest regret of the sudden illness and death of Samuel Thorne. That we take this opportunity of expressing our sympathy with the family of our deceased life member, friend, patron and colleague in their bereavement.

We desire further to express our sense of the great loss which the city and community, as well as horticulture, have sustained in his decease. He was a shining example for those who survive him, noted for his resolute industry, uncompromising integrity, wise enterprise, high public spirit, sage counsel and helpful attitude towards those who sought his advice. He was a man deserving of all honors, a conspicuous success in his field of endeavor, an encouragement for all who would follow his example.

We cherish his memory and gratefully testify to his many acts of practical help in our efforts to advance

horticulture in this city.

Resolved, That our secretary be instructed to send a copy of this resolution to the family of the deceased, and cause same to be published in the horticulture press.

(Signed)

Patrick O'Mara, CHARLES H. TOTTY. WALTER F. SHERIDAN.

#### THE NEW YORK SPRING FLOWER SHOW.

The preliminary schedule of premiums has been issued for the International Flower Show to be held in the Grand Central Palace, New York, April 5 to

The premiums offered this year are even more liberal than they were for the 1915 and 1914 shows with some increases in the classes also. Space will not permit publication of the schedule in this issue. but it will appear in the November number of the CHRONICLE. In the meanwhile, those desiring to obtain copies of the preliminary schedule can do so by applying to John Young, secretary International Flower Show, 53 West 28th Street, New York City.

### NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

#### ANNUAL CONVENTION, DECEMBER, IN BOSTON.

The annual convention will be the next important event of the National Association of Gardeners. It will be held in Boston during the first week of December - Efforts are being made to make the 1915 convention the most successful in the history of the association. An interesting and instructive program is being prepared. It is planned to give up more time than heretofore to the problems of the gardening profession, although entertainment is not to be entirely eliminated. The officers make a strong appeal to all members who can possibly arrange their affairs so as to be able to attend the convention in Boston the first week in December to do so. Fuller details will be published in the November number of the CHRONICLE.

The essay contest is closed. Nine entries were received in class 1, six entries in class 3, one entry in class 2 and no entries in class 4. The essays, as provided in the contest, will be judged by three members of the garden profession and two members of the horticultural press and the winners announced at the armual convention.

The Co-operative Committee has received many responses to the resolution of the Nassau County Horticultural Society on the acceptance of a member in good standing from one local society to another society. Some of the societies have not yet advised what action they have taken on the resolution. It is requested that the secretary, or the local co-operative committee, of these societies inform John W. Everitt, Chairman, Box 290, Madison, X. J., what action has been taken so that the National Committee can make its report at an early date.

The following "specifications" recently accompanied an inquiry to the Service Bureau for a "thorough" gardener:

The aurden comprises about two acres and supplies not only regetables for the main house but also two cottages on the place.

The lanns must be kept in good condition and the roads trimmed; also hedges.

A gardener must understand inside work. We have a small green heuse to which is attached a graperu.

There are also two noung orchards and the gardener generally trims the trees in the rate fall and early spring. A knowledge of gratting would be desirable, also a thorough knowledge of rege tables and of planting hardy borders.

In the winter the gardener has simply had care of the greenhouse in which to aron regetables for table use.

We have two men who act as assistants to the gardener who have been with me for twenty years and are very competent.

We are situated on a farm of 750 acres. We are seven miles from . . . We are one mile from the village and Post Office of Springfield Centre, which has Episcopai, Roman Catholic and Baptist churches, market, stores, etc.

I can use either a married man, farmshing him a house, milk and vegetables from the garden, wood for one stove, 15 bushels of potatoes in the fall and five barrels of apples if we have them to spare.

I will give a married man 850 a month with house and these perquisites. To a single man I will offer 850 a month and his board.

Of course I want a man only with first class references, strictly sober, industrious and thoroughly understanding his work.

The Bureau responded that it would not endeavor to supply a gardener possessing the qualifications demanded at a salary such as stipulated, but would gladly offer its services if the remuneration were increased to conform with the rigid specifications submitted. There was no reply.

There is no doubt, however, that the inquiry if freely circulated brought favorable responses from some directions, and thus convinced the employer who offers such meager wages for a position that makes such exacting demands that there is no justification in asking him to be more liberal towards his gardener, who must have devoted years of study and practice to possess the ability to fill the position—and yet his stipend will not equal the pay of a mechanic who to learn his trade is required to serve but a few years at an apprenticeship.

#### AMONG THE GARDENERS

William Plumb returned to Cuba last month, after spending several months of vacation in New York, to resume his work of beautifying a large Cuban estate over which he presides as general superintendent.

John Conroy, for some years general foreman at the Rose Hill Nurseries, New Rochelle, has secured the position of head gardener on the A. W. Church estate, Portchester, N. Y.

Frank Brunton, formerly superintendent of "Villa Vera," Locust Valley, N. Y., recently resigned that position to develop a 3,000-acre estate on the James River, Powhatan County, Va., the property of Edward McQueeney, of Pittsburgh, Pa. Mr. Brunton's new address is Fine Creek Mills, Powhatan County, Va.

Thomas Hambleton, has resigned his position as gardener to Mr. Garneau, Kingston, N. J.

George Willis, late gardener to John W. Kohlsatt, Stockbridge, Mass., has accepted a position as head gardener to Col. Oliver Payne, Greenwood Plantation, Thomasville, Ga.

John Barnet, late of Faulkner Farm, Brookline, Mass., under William N. Craig, superintendent, is now in charge of the estate of J. D. Lyon, Sewickley Heights, Pa.

Thomas W. Head, former superintendent of the Plant estate, Groton, Conn., and for some years in business for himself, has secured the appointment of superintendent of the J. Ogden Armour estate, Lake Forest, Ill., succeeding Joseph Burgess, who resigned his position to return to England.

Henry Gibson has resigned his position as gardener at Eastover Farms, Oyster Bay, N. Y., to accept the position of superintendent on the S. G. Rosenbaum estate, Roslyn, N. Y.

John Canning, superintendent to Adolph Lewisohn, Ardsley, N. Y., says the chrysanthemum bush plants which he will exhibit at the Fall Show of the Horticultural Society of New York this year will be larger than he ever before exhibited.

John Canning, James Stuart, and William Duckham were appointed a Committee on Securing Exhibits, at a recent meeting of the Executive Committee of the 1916 New York Spring Flower Show.

Quite a number of Eastern gardeners expect to attend the Cleveland Flower Show next month. Some of them will compete.

Fyou are a member of a local horticultural society or a garden club and do not find the report of your association's meetings or other events of it in our columns their omission is due to the fact that your secretary has not sent them in. Get after him!

#### Of Interest to Estate Owners

The National Association of Gardeners maintains a Service Baneau which is at the disposal of all who may require the services of efficient gardeners in their various capacities.

The association seeks the co-operation of estate owners in its efforts to seeme opportunities for those engaged in the profession of gardening who are seeking to advance themselves. It makes no charge for services rendered it endeavors to simply men qualified to assume their responsibilities the position may call for.

When your requirements known to

M. C. EBEL, Sec'y, National Association of Gardeners, Madison, N. J.

### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

EMIL T. MISCHE, President, Portland, Ore.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### SPECIAL NOTICE.

The annual membership roster, year book and new constitution and by-laws will be published and sent to members next month. If your name, address, title, etc., as used last year or as found on the wrapper of this magazine is not correct, notify the secretary at once if you wish a correction. Members who have not paid their dues for the past fiscal year, will not be listed in the membership roster, and will be dropped from the mailing list unless a remittance reaches the Secretary by November 1.

R. W. COTTERILL, Secretary.

#### A MESSAGE FROM THE PRESIDENT.

The American part of the association may well be stressed during this year. The wide range of the association's membership is at once a notable characteristic; it takes in two nations separated by an arbitrary boundary line; it extends from the Atlantic to the Pacific and embraces a range of diversification in park problems that is truly astonishing.

All parts serve people and most parks are municipal.

From details of administration which are purely local by reason of climate, flora or natural or racial characteristics of our cities, we still have certain aspects of parks and recreation which forsooth separate themselves into divisions. So axiomatic and truthful are these principles it is foolhardy to attempt to ignore them. By keeping in mind the general principles will we the better be enabled to solidify the function of a national association into a valuable working force. Broadening of visions, study of local methods and causes and fellowship are all served at the conventions. No one would desire to lessen the latter advantages, yet there seems a need of a greater discussion of how work was done and the motives underlying the way it was done.

With a view of encouraging more outspoken ways and giving especially the newer and younger members the advantage to be gained by a symposium on parks a tentative list of topics are represented and with it a list of those who are to prepare a paper of 1,200 to 1,500 words on the respective subjects. It is

desired that these papers be prepared about two months in advance in order that the secretary may arrange for changes in time of publication, follow up comments made, etc.

With each article is to appear a brief statement (usually not over 50 to 100 words) by others having distinctly different experiences, opinions or working under contrasting environment. Two articles with comments are to appear monthly and a month left open to canvass the Southern situation and the National and State Park status. . .

Another feature deemed likely to expand the usefulness of the association is a review of the annual reports. To this end it is requested that a copy of the annual report of each city be sent to the president, and it is expected that each month a brief review of those received can be published.

To be more intelligible and suggestive a few comments are made upon the titles given to explain more in detail the ground to be covered. This is, however, merely suggestive and title and scope may be altered by the writers.

1. Considerable insect troubles have been encountered in New England, and the States have made appropriations of several millions of dollars to combat them. What is the present status; are the pests being held in control, are they spreading and to what extent are parasites effective?

The debaters cover the field of greatest affection.

Park buses were not so uncommon in earlier days, but they have largely disappeared, whereas in Detroit they have increased. Why this should occur and how it is done would be interesting according to Mr. Bush's experience.

Mr. Richards can tell of the South Parks activities on the lagoons and out upon the lake—water transportation. Incidentally he may know whether the State Park Commission has succeeded in running boats up the Hudson to Great Bear Mountain.

The British have a host of games we rarely see played on this side of the line. Curling is one of them, and their long winters and plenty of ice give an excellent opportunity for its indulgence. But we do have many fine ice and snow sports, as will be explained by Mr. Wirth and Mr. Walsh.

A few decades ago we remember the powerful argument made by Mr. McMillan of Buffalo (later of Newark) on the use and misuse of exotics. The delegates to San Francisco readily appreciated the handicap were all exotics to be tabooed. Indeed, in



MEMBERS OF THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS AND FRIENDS VISITING TACOMA, WASH., EN ROUTE

lower California the exotica are the mainstay of available material. Let us hear from Mr. Cox how the material with high colors could be best used and then have some different viewpoint by the others listed.

Overlapping, antagonistic and complementary uses of vegetation for science and aesthetics has not recently been much discussed.

Thousands of named Crataegus are being planted in the Rochester parks. Varying viewpoints will be expressed by those assigned the task of discussing the duplicate uses of vegetation.

Essex County, New Jersey, has constructed some fine park work in connection with its river front at Passaic and in the Branch Brook Park. Mr. Olmsted, the designer, can give some interesting explanations of the designer's motive in planning the work; Mr. Putnam can discuss some of the most successful depths of water and shore treatment to withstand wave erosion and ice sour; Mr. Miller has had a number of like problems to solve which would be instructive to have told.

Boulevards are the distinctive thing thought about in the mention of Kansas City parks. Their width, planting and assessment of costs could be informingly told by Mr. Dunn.

Mr. Richards can discuss some high class boulevards as constructed in Chicago, and Mr. Donaldson can rehearse what is prevalent in Buffalo, where they are modestly called streets, but which in Kansas City would be known as boulevards.

Some of the general divisions of park work to gain the highest efficiency and most economical cost would be valuable from the man who handles the largest park appropriations in the country. Some of Mr. Wirth's work in gathering the loose ends of a large system and putting it upon an aggressive and progressive basis would be a fine supplement to Mr. Foster's discussion.

Then some of the New York experiences where forms of organization are changed from time to time and city governmental departments are more or less always being "investigated" could

make fine reading as written by Mr. Hamilton.

Driving, boating, walking and picnicing have not become obsolete but modern transportation facilities assist in enabling us to picnic further afield. Whatever the tendencies in this regard, and what are some of the newer facilities offered as described by Mr. Green, will cause us to ponder the merit of different park uses. The debaters can give local sidelights from their angle of vision,

Reduced to three, parks will be one of the things a good Rochesterian will tell as having special pride about in his city. How Commissioner Lamberson has tostered this by the use of music would be excellent reading by the man who has admiristered Rechester parks for many years. Our honorary member, Mr. Loring, could tell some interesting history of how he promoted parks at his former home.

To everyone who has crossed the Rockies, the West never ceases to be a wonderland. And it is not all natural, either. The heroics of nature are paralleled by the work of man, and nowhere more conspicuously than by turning drifting sand dunes into a park beyond compare. Some of the difficulties encountered and the means of surmounting them would be more marvelous than the most romantic fiction if told by the helmsman who steered the eraft through shoals, and rocks to a successful ending at San Francisco, our beloved honorary president, John MacLaren. Some turther comments by a well-informed observer of the work, Miss Fairman, would give further pleasure.

Few cities have made the rapid strides accomplished by Baltimore in her recent park work. Extensive plantations made would easily be a subject that would develop into a most readable article as handled by Mr. Manning. Then to get a totally different viewpoint Mr. Shearer and Mr. Morley will elaborate on

the theme by giving some Southland experiences.

Design and control are large factors in bringing out the merit of any park property. Control involves a knowledge of motives of design, a broad and reasonable conception of human traits and inclinations lest the law enacted for its enforcement be made unreasonable or its administration prove ineffective, absurd or reactionary.

How to sympathetically assist the use of the property and extend its usefulness of service could be viewed from both sides where extremes are often met would furnish a capital subject for Mr. Merkel to discuss and Messrs, Mulford and Koehler to throw on side lights.

Zoological gardens, botanic gardens, art museums and allied objects of public interest frequently find lodgement in public parks, either as a secondary attraction or as a main objective in maintaining the property. Mr. Moore has a considerable collection of animals which may be the basis of a paper and Mr. Merkel and Dr. Baker can give some points on the technique and general scope of conducting the foremost zoos in the country. Mr. Burke also has a fine zoo and would expand on the theme.

Nothing has recently been heard from that New England park statistician, G. W. Parker. What are the latest abstract and abstruse conundrums he is wrestling with? Mr. Wirth, his former fellow-townsman, will have some interesting observations in the light of his rapid progress at Minneapolis, where "statistics," "efficiency" and like waves of popular mandates have been ex-

perienced.

What are we doing with street trees as a supplemental instrument of encouraging park feeling in a community? Mr. Prost is engaged in that field and should relate his city's program both accomplished and prospective. Mr. Levison will be enabled to give a different viewpoint and may be successful in inducing Mr. Solotaroff to write an article and become a member at the same time. But Canada has some excellent object lessons in how to do it as witnessed at Winnipeg and Victoria. Mr. Champion will deal with the former and Mr. Purdy with the latter, and incidentally Secretary Cotterill will gain a new number by getting after Mr. Purdy.

Fluminating the extraneous barnicles that attached themselves



NTION AT SAN FRANCISCO, IN AUGUST. THE GROUP INCLUDES THE MEMBERS OF THE FOCAL ENTERTMINMENT COMMITTEE.

to the playground movement while it was yet a popular issue -What is the wave settling down to as an element of park concern? We found out a deal about what we did not know about play and playgrounds, but sifted down, what is there left about which there is agreement not contested by the moving spirits of the play movement? The administrator of the largest and best playground system, Mr. Richards, can give his ideas and opinions; Mr. De Groot, the foremost of the movement, can add to his admirable address (even though his conclusions are not always endorsed by some park people), and Mr. Shea has had some of the largest experience in the hothed of modern thought.

Towns, cities, counties, States, federal governments and private corporations have left the impress of their park work in parts of the country. One of the remarkable features is that whereby people become enabled to use not thousands but tens of thousands of acres of scenery as parks. Mr. Steinhauer will well discuss what Denver is doing and has done about her mountain parks as a city-county project: Mr. Zartman about the up-State reservation as a private undertaking for the public use, and Mr. Fohn about a reservation created by an individual for a community.

Ottawa is in her way building a national city for Canada much as we are building a Washington, not as a city alone but as a National capital. What her schemes are, her aims, accomplishments and expectations for the near future should be detailed by the man at the helm of her park work, Alex Stuart. A few brief notes on what has lately been accomplished at Wash

ington can be added by Mr. Mulford.

If you can not secure sufficient land, it may be possible to secure water areas and make land in the shallow parts of it. Mr. Thompson has been doing some remarkable work of that kind at Seattle, and would give a new vision of one kind of park making. Mr. Wirth has treated several lakes in a similar way, and would give some of the salient features of that type of work. Mr. Putnam's Boston work will present a new aspect to the above and other examples are to be found in the experiences of Messrs. Miller at New York and Kerfoot at Oakland.

Water sports are increasingly more popular with the extension of a park system, but to note its intensive presence in the everyday life of a people Boston, New York and Minneapolis are good illustrations, especially the latter, because of its general use among the whole citizenship and its abundant use. Mr. Wirth can tell a wondrous story of how water sports may be made a prominent feature of park administration. Mr. Alber and Mr. Walsh

can extend the discussion from local experiences.

Some communities need to scratch and grind for a living and others have wealth literally showered on them, and then park making becomes a live issue. The experience of one of the latter is cited by the example of Hibbing, Minn., and Mr. Wolff will be able to tell us about it. Even when not favored by wealth thrust upon them, small communities do make excellent park history. Mr. Berry will tell what has been done at Colorado Springs, and Mr. Fiske at Racine.

Mr. Loring is to give a special article on park extension methods, citing particularly the stages of development experienced in

Finally, a symposium on work in the South is to be scheduled and later the detail thereof announced. It is to include New

Orleans, Atlanta, Birmingham, Memphis and Dallas.

Without previous discussion with the contributors assigned, it will be gratifying if each one concerned, according to the list as given, will make this announcement personal and sympathetically and generously fulfill his part without further solicitation on the part of the secretary or myself.

If you have any ideas you think should be put in practice by the association to assist in making it the medium it should be. do not hesitate to communicate them to the secretary or president.

Yours for a bigger, better and more influential organization. EMIL T. MISCHE, President.

Summary of proposed subjects and writers:

1. "Insect Affections on Park Acquation." Green of Providence, Shea of Boston, Levison of Brooklyn and Egerton of Albany. 2. "Curling and Winter Sports." Champion of Winnipeg.

Stuart of Ottawa, Wirth of Minneapolis and Walsh of New York. 3. "Park Transportation." Bush of Detroit, Shea of Boston

and Richards of Chicago.

- 4. "Exotic Plants in Landscape Work." Cox of Syracuse, Stevens of Berkeley, Jenson of St. Louis and Sheurer of Los Angeles.
- 5. "Botany in Parks." Dunbar of Rochester, Merkell of New York, Nash of New York, Ohlweiler of St. Louis and Hess of Washington,
- 6. "Waterway Parks." J. C. Olmsted of Brookline, Duncan of Spokane, Putnam of Boston and Miller of New York,
- "Boulevards." Dunn of Kansas City, Richards of Chicago
- and Donaldson of Buffalo.

  8. "Park Organization." Foster of Chicago, Wirth of Minne-

apolis and Hamilton of New York, 9. "Picnic Facilities." Green of Green of Providence, Hill of Tacoma, Laney of Rochester and Goebel of Grand Rapids.

10. "Popularizing Parks by Music," Laney of Rochester and Loring of Minneapolis.

Development of Golden Gate Park." J. McLaren and 11.

Miss Madge Fairman of San Francisco. 12. "Park Plantations." Manning of Manning of Baltimore, Shearer of Los Angeles and Morley of San Diego.

13. "Park Restrictions." Merkell of New York, Mulford of Washington and Kochler of Roslindale.

"Park Zoo's." Moore of Toledo, Baker of Washington, 14. Merkell of New York and Burke of Pittsburgh.

15, "Standardi; ma Park Statistics." Parker of Hartford and Wirth of Minneapolis,

Prost of Chicago, Champion of Winni-16. "Street Trees. peg and Levison of Brooklyn.
17. "Playground Control." DeGroot of San Francisco, Rich-

ards of Chicago and Shea of Boston.

18. "Mountain Parks." Steinhauer of Denver, Fohn of Colo-

rado Springs and Zartman of New York.

19. "Government Park Improvements." Stuart of Ottawa,
Mulford of Washington and Eckert of Niagara Falls.

20. "Construction of Lake Parks." Thompson of Scattle, Miller

New York, Wirth of Minneapolis, Putnam of Boston and Adams of Omaha.

21. "Water Sports and Bathing Beaches," Wirth of Minneapolis, Albers of Cleveland and Walsh of New York,
22. "What Small Cities Can Do." Wolf of Hibbing, Meisen-

22. "What Small titles tan Do. Wolf of Irlong, Melsenbacher of Tulsa, Fisk of Racine and Ellis of Saginav.
23. "Park Extension Methods," Loring of Minneapolis.
24. "What the South Is Doing." Davis of Memphis, Allen of New Orleans, Crist of Atlanta and Brock of Houston.

This list is not final, other suggestions will be made later and volunteers will be appreciated.

Secretary's Notes As we have a literary president this year, the secretary does not have to rake his brain to find something to fill this department, hence the "personal" notes will be omitted this month.

#### CONVENTION TRIP OF PARK SUPERINTENDENTS.

(Continued from September issue.)

(The adventures of the trip from Glacier National Park to San Francisco are described in the following excerpts from the diary of Mrs. John D. McLwen, of Queens, N. Y.

FRIDAY, August 13. Leaving Glacier Park the night previous, to continue our journey through the Rockies, we were called at sunrise to view the crossing of the Great Divide, where the trainwinds back and forth in a seemingly never ending climb over the waterfalls of the Flathead River and along the precipices where the giant Douglas firs seem to reach Heaven, recalling Hood's lines:

"I remember, I remember, The fir trees, dark and high, I used to think their slender tops Were close against the sky.

Here we crossed into the Panhandle of Idaho, along the Pen'd Oreille River that plunges down the sides of the mighty Rockies through the giant pines. Steep grades necessitated the use of three engines. Frequent stops were made for water for the engines at interesting lumber camps and small settlements.

Arriving at Spokane about 8 o'clock we were met by John W. Duncan, Superintendent of Parks, Spokane, and the local committee, who escorted us to the Hotel Davenport. After registering and meeting other members of the committee we boarded the autos, awaiting us, for a trip through the following parks: Corbin, Byrne, Minnehaha and Sinto. Arriving at Manito Park at noon we were entertained at a delightful luncheon served outdoors under the direction of the Ladies' Auxiliary.

After luncheon the auto ride was continued over the boulevards to Cannon Hill Park and the Cliff, through Indian Canon and over the high bridge, where a wonderful vista of Spokane Falls was observed, and various other interesting points, terminating at Natatorium Park. Returning to the Hotel Davenport we were invited to leave the real estate which we had accumulated in the bath tubs in rooms assigned to us, as the City Fathers of Spokane made it a rule never to permit visitors to take with them what they have not contracted for.

After a refreshing bath we assembled in the grand ball room of the hotel, where a most sumptuous dinner was served us, which was followed by an address of appreciation made by the officers and other members of our party and speeches of "Godspeed" by the local committee, after which we proceeded to our train. In walking from the hotel to the depot the veteran of our party, Charles Haible, of Newburgh, N. Y., loath to leave the charms or charmers of Spokane, missed his train. "Father Merkel" endeavored to convince the conductor that the train should be held up until a messenger could be sent out to locate the delinquent, but, failing in his efforts, we had to proceed without him.

SATURDAY, August 14, found us at daylight on the west side of the Cascade Mountains, after passing through the long Cascade Tunnel. Emerging from the tunnel we went rapidly down grade through miles of snow sheds, past green mountains, clear little falling streams, and out into the fertile valley, reaching Everitt, the Pacific terminal of the Great Northern Railway, at 7 o'clock.

Arriving at Seattle about 8:30 in the morning we were met by Roland W. Cotterill, the secretary of the association, and others and hustled into a dozen autos, and in procession passed through the business part of the city and out to Kinnear Park, where some of the beautiful native Madrona trees were seen, and Elliott Bay was viewed, but owing to the forest fires we had to take the local citizens' word for the mountains that lay beyond. Passing through the Queen Ann Hill residence section, where the streets are bordered with mountain ash, the "rowan tree" of the Scotch, we returned to the roof garden of the Washington Hotel and were served with liquid refreshments. Woodland Park, with its good drives and zoo, was next visited; thence to the University grounds and over the winding Interlaken Boulevard to Lake Washington.

Passing through Mount Baker, a residential park, and Volunteer Park we were taken to the Seattle Commercial Club for luncheon, and there, amid rejoicing, we welcomed the missing Haible. At luncheon we were welcomed to Seattle by members of the local committee, which were responded to by members of our party. After a short period of rest we boarded the steamer Mimeapolis for Tacoma. On board the steamer we were met by George A. Hill, Superintendent of Parks at Tacoma, and Mrs. Hill who, acting as a reception committee, escorted us to the city. Arriving there we found autos awaiting us and enjoyed a most interesting ride about the city. Our first stopping point was at the magnificent Stadium, where as many as 50,000 people often Leaving the Stadium we drove southward about twelve miles to Point Defiance Park, and the drive over the splendid. inexpensive, earth-crowned road, was a revelation. One might almost expect at each turn to be held up by a band of Indians, so awe-inspiring was the density of the fir trees, whose bases would require the out-stretched arms of from eight to ten men to encircle.

In a grove of firs by the roadside a delightful picnic supper, prepared on the concrete stoves, was served by several ladies. After our appetites were appeased, we enjoyed the interesting speeches, during which Mr. Allen, of the Tacoma Park Board, brought out the point that he was not afraid that any park superintendent present might copy the plantings in Point Defiance Park with trees almost a thousand years old. A private car of the local street railway carried the party back to the Northern Pacific depot, where our train and baggage awaited us from Seattle.

SUNDAY, August 15. Early in the morning about ten miles out of Portland we crossed the famous Columbia River over trestles two miles in length. Arriving at Portland about 8 o'clock Emil T. Mische and a committee composed of local park people met us and, entering autos, we started out for another day of sight seeing. Proceeding over the boulevard that overlooks the Willamette River we drove through Portland Heights, a fine residential section, and visited the interesting Forestry Building: thence over about ten miles of new roads winding in and out on the mountain side. Crossing the beautiful Willamette River and driving through the St. John's district we next visited Columbia Park, then to Peninsula Park, where the fine sunken rose garden is located. Portland certainly proved her claim to be the "rose city."

Passing through a very attractive residential section we reached Mt. Taber Park, where we were met by Mrs. Baker, wife of the Park Commissioner, who became our hostess for the day. Luncheon was served on the veranda of the Park Lodge overlooking a beautiful view of the city, river and mountains. Luncheon over, we proceeded under the direction of Messrs. Baker and Mische to visit the different parks and playgrounds. Again crossing the river, we drove through an interesting park and fine cemetery, where we recalled the fact that Portland permits no Sunday funerals. Arriving back in the city about 5 o'clock, we were taken to the Chamber of Commerce rooms, and after a rest were served with a most delicious dinner. Portland has the largest Chamber of Commerce in the world, and owns the large office building in which the rooms are located. Following the dinner there were speeches by Messrs. Baker, Mische, Prost, Merkle and McEwen, As we left the dining room each lady was presented with an armful of lovely roses.

MONDAY, August 16. Our first important stop was at Grant's Pass. We soon began to sharply ascend grades, and it was not long before we were in the wonderful Siskiyou Mountains, where we could catch glimpses of the Rouge River valley spread out below us. Early in the afternoon we sighted Mount Shasta and about sunset reached Shasta Springs. It was near here that we began our repeated crossing of the Sacramento River, crossing eighteen times in all. We noted the beautiful Castle Crag, bare rocks that stood on the mountain top like veritable castle towers. While the mountain tops were bare, the railroad itself passed through a wonderfully interesting growth of trees and wild shrubs, a variety of evergreen and deciduous trees and shrubs that we did not know.

TUESDAY, August 17. We awoke early to find ourselves skirting the waters of San Pablo and San Francisco bays for a distance of twenty-five miles, reaching Oakland about 7 o'clock and San Francisco by ferry a balf hour later. A few minutes later we were all comfortably located at the Hotel Stewart, the headquarters of our party in San Francisco.

(To be concluded in November issue.)

## The Drift of Modern Recreation

An advises by Edwin B. (2) Great, D. Get v. of Physica, Tenenten, Nin Francisco - respect for the 17th one content of the American Association of Leek Sugar at notice wat 800 code sectors. Tugast 20, 1918.

You have heard painted descriptions here on problems of several years; however, I doubt if any problem has awakened as much interest as the modern recreation problem, and you find yourselves more and more perplexed with it; the consequence is, if we discuss briefly the drift of this movement, it may

give help to us.

We have had this movement for about 26 years. It started in Boston about twenty-six years ago. For fifteen years we have had a very intensive development of it under different groups; park boards, school boards, playground commissions, etc., and we have seen this intensive development end, and in the last eight years we have had a national propaganda body running over this country, stimulating public education along these lines. Consequently we have spent a vast sum of money, and it means something. We have found a new and easy way to graft, or we are responding to public sentiment. I believe there is a distinct public sentiment for this recreation movement, and that this large, vast expenditure of money for recreation facilities is nothing more or less than a response to a public demand. But this is

a single thing about this movement. We have had it for twenty-five years, and for fifteen years in its intensive development, yet the movement has not been standardized. This is in contrast to the Boy Scout movement. This movement has a definite problem with reference to activities, with reference to activity facilities and leadership.

This playground movement has nothing standardized as to what is necessary, or activities, or supervision of activities. We are all treading air in most of these matters. The only things that has been standardized is the Public Schools Athletic League in most cities. That was standardized almost at the outset in New York City. There was had a definite scheme which applied to boys in the upper grades. The difficulties there were that it was not broad enough.

The Public Schools Athletic League only reaches boys in the upper grades. We propose to reach girls and boys of all ages. We have, however, reached new phases of this movement in recent years.

The dictionaries did not include until quite recently, such phrases as organized recreation, and the like. These are distinctly new phrases which have come with this movement. The whole business may be

likened to the rising sun at the Exposition. There are two companion pieces in one of the courts. A young man standing on tip-toe with his head elevated, aspiration all over his form and the young lady opposite, representing the setting sun. It sems to me this recreation movement is represented by this beautiful statuary. Whether we will ever do anything very serious about it remains to be seen, but nevertheless since it has so much back of it, of public sentiment, we must meet it, and we can treat as the old Methodist preacher was inclined to treat a certain situation: The people had come into his church to discuss a neighborhood problem and they discussed it pro and con, and the old preacher stood up and said: "Ladies and gentlemen, these are serious problems. We must meet them. Having met them, let us pass on."

We cannot meet these recreation problems in this manner. We must supply playgrounds or stand out

boldly against them.

How have we treated this idea? This public recreation movement? We have supplied large areas, usually quite adequate areas for play, they have been pretty well kept, as a rule; the surfacing has been pleasing and altogether it has lent itself to play. Then the parks have supplied a great quantity of apparatus, much more than the playgrounds under other groups; perhaps, altogether, too much apparatus. Nevertheless, there has been this adequate supply of apparatus of all descriptions. Then we have worked the playground movement out in the parks in a very inclusive manner.

It has served the little children as well as the very mature people. The idea of a park man seems to be to supply every facility needed by everyone. Therefore, we have in the parks a more or less ideal equipment of, satisfactory equipment, to the community.

What more do we need in the parks? What more has been demanded which they have not supplied? It is this bugbear of supervision. It is claimed that park supervision is not adequate. In the parks there has been either police or attendant supervision, and so forth, and almost never the trained supervisor; so it seems to me there is one place where the park man is having trouble, and will continue to have it until the

supervision is met.

What is meant by that? Let me say I believe it is not a myth; that there is something real about it; that it means, in its essence, that the parents who send their children to the playground, want these children to come into contact with a superior person, whose manners and language are right; with a person who can shape the ideals and aspirations of these children; not some one who is to patronize and knock them about roughly. They want some one akin to the teachers of the class room. All education is not found in the class-room, but some in leisure time, and the humblest parents want their children to come in contact with a superior person in a playground as a leader than in the classroom, because in the class-room you are engaged in your studies, but in the playgrounds they are engaged in activity, and children live in activity, and consequently the play should shape the ideals, manners and morals of the children and this found in the playground and not in the class-room, always. Consequently there is something quite fundamental in this demand for supervision, and the people who have made serious study of it, say this: That the parks have for many years furnished these splendid facilities which have given us splendid satisfaction, but in this intensive work, they have not given this supervision. "More than this," they say, "gambling goes on in the parks."

The laws prohibit gambling, yet it goes on quite openly in the handball courts, and things of that sort, in many of the parks, and most everything is played for a jackpot or a stake, and it is a question whether our great national game is building up character or building up a bunch of gamblers. Then again the parks of many large cities show an undue amount of immorality. People go there for recreation. Well, of course holding hands is recreation, but beyond that, is immorality, and the public parks have become the stamping ground for immorality, and people have said that the parks have not taken hold of the matter as they should.

Then, when the park board people say: "We shall attempt to supervise these playgrounds," they are at a loss to find these superior people to place in these parks. They cannot seem to find them. The salaries are quite low; there have been no training schools until quite recently, and those have been quite inadequate; consequently it is very difficult to find trained supervisors, and so the park man is in the position of the little boy who was weeding the garden. A neighbor poked his head over the fence and said to him, "Little Boy, how much do you get for weeding that garden?" The little fellow replied, as he straightened up and put his hand on his back, "Nothing if I do, and the devil if I don't."

So the park man gets nothing if he does have this supervision, and the devil if he does not. So the difficulty is in finding these superior leaders of play.

Much is to be said about supervising play. Many of us say "We were not taught to play." "Look at us, good strong, husky fellows with good morals. We didn't have this paly supervision; we were not taught to play. Why should the children of today have to have it?"

The conditions have changed very radically. Moreover, we cannot tell but what we might have been governors or presidents, if we had superior play leadership. I think I can give way to no man in the utter play that I had, but I wish I had had some one at the old swimming hole, at the wrestling match, at the boxing match, and those affairs, which are incorporated today in much of a modern recreation movement. It would have been a great pleasure to me at that time and it would be a great pleasure for me to look back on that experience now.

It does not mean play bossing, but simply interpretation of play life. We very often interpret a book to a boy or a girl so that they can get more pleasure out of that book—get richer values. Then the educators have discovered great possibilities in well directed play. Many lessons can be taught in play that cannot

be taught in the class-room.

What have the schools done with this problem? The parks ought to be given the greatest amount of credit for controlling and leading this modern movement. Their record is fine in that respect. The record of the school is not so good. They have supplied playgrounds where, if the children attempt to play they fall down and cut their hands and knees on the ugly cinders in the school vards and the hard pavements. It is no wonder the children rush out to the street to play, rather than linger in the school yards. schools have fallen down in the playground. Then, the equipment has been of a very poor type, not placed there with any great amount of study. Then again, the playgrounds of the schools have always been operated on a very short period of time. For instance, when the summer vacation comes, the board says, "We will have six weeks of playground work in the school

yard." At the end of six weeks, when the children are really getting some fun out of it, then the playground is closed. Then, too, they are closed very early in the afternoon, if they are operated at all in the afternoon, so the schools have not done very much with playgrounds. I shall say something more about this in just a moment.

Notwithstanding the fact that park and school boards have taken hold of this, they have in certain communities organized playground commissions. Why should we develop a new body, when we have groups whose function it is to do something along these lines—in other words, to cover the ground, if need be.

The Park and School Boards have complained of insufficient funds; therefore, we have created a new body. These, then, have supplemented the park and school boards again, in our municipal government, there is always a welcome to a new body. It means officers, positions, patronage, etc. But we have added to the tax and multiplied municipal machinery. There has been a great deal of duplication in this sense. And these playground commisssioners have not offered anything superior to what has been offered by the school or park boards of those who have gone into this with earnestness. The Park Board is attached to the community; the school board is attached to any settled function of the community, and consequently the playground commission is one of the weakest organizations handling this public recreation movement, notwithstanding the fact of brilliant examples here and there on the part of such commissions.

It seems to me this is the drift: The park boards are seeing, and the park superintendents the same, that they have been too willing to buy every piece of apparatus that came along, exploited by some man. They have been too willing to put in this apparatus. This movement does not aim to give the leap for life or the jump from the heavens or some place else, and yet these people are always coming to the park board to sell this apparatus. It usually has great possibilities for accident, no possibilities for building and developing the physique, developing the will power. school courage or any of those other rich attributes which could come from the use of this apparatus in play, but it is most stimulating. It attracts the crowds. Of course the children rally there and hang around it all day because of this great amusement. They would follow the "Black Mariah" any time an arrest was made because it is spectacular.

It seems to me the park boards are traveling the wrong line, there and that the boards are seeing, and the superintendents are seeing, and they are regarding with suspicion the man who comes to sell them these wonderful devices.

(To be continued in November issue.)

#### PROPAGATION OF HEATHS BY CUTTING.

The Heath or Erica family is a fairly large one, and consists of both hardy and greenhouse plants. They differ widely in their habit of growth, ranging in height from about 9 inches to 6 feet or more. The various species and varieties blossom at different seasons, no period of the year being without its flowering Heath. Many gardeners are under the impression that cuttings of both greenhouse and hardy Heaths are difficult to root. This, however, is quite a mistage; the cuttings root very easily, provided one or two very simple rules are followed. No season of the whole year is better than August and early September to insert the cuttings. At this time there are plenty of

half-ripened young shoots on the plants, which make excellent cuttings.

As comparatively little depth of soil is necessary for Erica cuttings, the pots should be filled at least half full of broken crocks or other suitable material at hand for drainage. Over this place a layer of rough peat or moss to prevent the fine soil trickling down between the crocks and preventing the free passage of water. A suitable compost in which to root the cuttings consists of two-thirds peat, passed through a quarter-inch mesh sieve, and one-third sand. Fill up the remaining space in the pots with this material, press firmly, and leave the surface of the soil a quarter of an inch below the top of the pot to permit of a little fine sand being sprinkled over the surface and to allow space for watering. Water each pot well as soon as filled and leave it long enough to drain thoroughly previous to inserting the cuttings. The most serviceable sized pots to use are those known as 5-inch size. These are convenient to handle, and are just wide enough to take a 4-inch bell-glass.

The largest percentage of successes may be expected when cuttings of medium growth are inserted. In most instances the side shoots growing on the strong, vigorous young growths will be found to answer this description. Thin, weak cuttings, though they will root, seldom grow away kindly and make good, sturdy plants, while many of the thicker, sappy growths would damp if inserted as cuttings. An inch to 11/2 inches, not longer, is a good average length for a Heath cutting. Many of the side shoots will be found about this length, and if removed carefully with a slight downward pull will come away from the main stem readily and have a nice heel at the base. Failing this, the shoots must be cut off just below the leaves at a joint. The bottom leaves must be carefully removed.

The cuttings may be inserted moderately close together. A 5-inch pot will accommodate from thirty to three dozen cuttings. Place a layer of fine sand over the surface of the pot, take a small pointed stick (dibber) in the right hand and a cutting in the left. Make a hole with the dibber, and as it is drawn out insert the cutting, and allow the sand to trickle in and fill up the hole. Press the cutting in firmly with the other (thick) end of the dibber. Water the cuttings with a fine rose on the spout of the watering-can, and allow the pot to drain for a few minutes before placing on the bell-glass. Should a propagating-frame with just a little bottom-heat be available, the pots may be plunged in this. Failing this, place the pots under a hand-light in the shadiest part of the greenhouse or in a cold frame. Wherever they are placed, shade the cuttings from sunlight.

Every morning the bell-glasses should be removed and any moisture collected on the inside wiped off with a cloth. Water the cuttings when dry with a rose on the watering-pot, and remove any damp or yellow leaves if present. The young cuttings will root in from two to three months, when it will be necessary to gradually admit air, this being done, to start with, by tilting the bell-glasses before removing them entirely. When growing freely the tips of the shoots should be removed, to induce the plants to make several shoots each and form nice little bushy plants by next May. These young plants, if of a greenhouse variety, should be potted off singly in small pots, or, if belonging to the hardy section, planted out 4 inches apart on a prepared border outside, from where, in the following autumn, they can be transferred to the positions for flowering. Gardenin

## Our Native Birds' Protectorate

Under the Direction of the Committees on Bird Preservation and Propagation. National Association of Gardeners, L. H. Jensen, St. Louis, Mo., Chairman. American Association of Park Superintendents, Herm ann Merkel, New York, Chairman.

#### PROTECTING BIRDS IN PUBLIC PARKS.

By J. S. Foster,<sup>2</sup> Illinois.

Some years ago an exceedingly well informed gentleman, whose name I do not recall at this time, was touring the country as a representative of Miss Anna Gould in her effort to increase people's interest in birds. He visited us and gave us valuable information in the matter of attracting and caring for birds in the public parks. We followed his suggestions and advice as far as possible, feeding and providing nesting boxes for various kinds of birds, and can say that it is surprising how many varieties of birds can be located by nature lovers in some of the parks.

From time to time other naturalists and bird lovers have given us valuable suggestions on this subject; among these may be mentioned Mr. J. R. Griffith and Jack Fulton, Jr., both of whom are well posted and very enthusiastic advocates for the protection of wild birds. The latter found 114 different kinds of birds or water-fowl in Jackson Park between March 1 and May 20 in 1914. A list of these is given further on in this letter.

At various places throughout the park system signs have been posted requesting the public to co-operate with the South Park commissioners by not molesting the birds. Food is supplied to the birds during the Fall, Winter and early Spring. This consists of a mixture of various kinds of seeds, including in some cases also ground break and meat. The mixture is made up of the following:

Hemp seed	200 lbs.
Millet seed	
Sunflower seed	100 "
Mixed chicken feed	
Oats	

In the larger parks where the mixture is fed rapidly enough to prevent the ground meat from spoiling, the following articles are added to the above mixture:

Ground	beef			 					 	20	lbs.
Ground	beef	suet.	 	 						10	4.6
Ground	stale	bread	 		 					 6	loaves.

At various places in the shrubbery in Washington and Jackson parks feeding platforms elevated about six feet above the ground on single iron pipe standards, and covered by thatched roofs, are located, on which the feeding mixture is placed daily during the seasons previously mentioned. The feed is also scattered in sheltered places on the ground, where it is readily found by the birds.

Quite a number of small suet "cages," each holding several pounds of ground suet and made to fit around the trunks of trees, have within the last year or two been hung here and there in the two larger parks in an effort to hold over Winter the kinds of birds which relish that food.

In early Spring, nesting material, mostly in the form of loose waste, is hung at different places in the shrubbery, where the birds are apt to find it easily.

Several sizes of bird boxes have been placed in trees of different parks, and the shelter afforded by them has undoubtedly contributed towards inducing the birds to make their homes there. In addition to these, martin-houses, providing for several hundred birds, are placed on the tops of tall posts in Washington and Jackson parks, and every year colonies of martins take up their residence in them. These martin-houses are closed in the Fall after the martins leave so as to prevent the sparrows from taking possession of them. Just before it is time for the martins to arrive in the spring all of the houses are opened again. The posts supporting the martin-houses are covered a part of their length with tin to prevent cats or squirrels from climbing them.

As many varieties of birds are quite shy and rarely come out from their retreats in the shrubbery, the general public is undoubtedly not aware of their presence, and they are seen as a rule only by those close observers who delight in seeking them. The Wooded Island in Jackson Park, surrounded as it is on all sides by water and with plenty of shrubbery and trees seems to be a favorite resort for the birds. It was on this island that Jack Fulton, Jr., found most of the birds in his list, which follows. This covers only such varieties as he found up to May 20th, and all were seen in Jackson Park

Bank swallow .....

Cedar waxwing ...

seen in Jackson Park.		
Kind of Bird.	Found at.	Date seen.
Belted kingfisher	. Wooded island	March 26
Harry woodpecker	Wooded island.	March 2
N. downy woodpecker	. Wooded island.	March 6
Yellow-bellied sapsucker		April 4
Red-headed woodpecker	Wooded island.	April 25
Flicker	Wooded island	April 6
Whip-poor-will	Wooded island.	April 24
Kingbird	. Wooded island.	April 27
Crested diveatcher	Wooded island.	May 20
Phoelie	18 hole golf course	March 30
Kingbird Crested flycatcher Phoche Olive-sided flycatcher Wood newee	Wooded island	May 20
Wood pewee	Wooded island.	April 27
Least fiveatcher	Wooded island.	April 29
Yellow-billed cuckoo Blue jay	Wooded island.	March 1
Cowbird	Wooded island.	March 28
Red-winned bla. blird	. Swamp.	March 31
Meadow lark	Around park. Swamp.	4 8 9 9
Baltimore oriole	. Swamp.	April 27
Rusty blackbird Brenzed grackle Purple finch	, Swamp.	March 25
Bronzed grackle	Wooded island.	March 14
Purple finch	Peninsula.	April 13
Gold finch	. Wooded island.	
	. Wooded island.	May 20
Vesper sparrow	Around park.	April 14
White-crowned sparrow	Wooded island.	May 4
White-throated sparrow		April 15
Tree sparrow	Swamp.	March 14
Tree sparrow Chipping sparrow	Around park.	April 12
Field sparrow		April 18
Slate-colored junco	Swamp.	March 14
Song sparrow . Swamp sparrow	. Around park.	March 8
Swamp sparrow Fox sparrow Towhee	. Swamp.	
Fox sparrow	. Around park.	March 28
Towhee	Swamp.	March 28
Rose-breasted grosbeak	Wooden island.	April 28
Scarlet tanager	Wooded island.	May 4
Purple martin	Around park.	April 21
Barn swallow	Around park.	April 25
Tree swallow	.Around park.	April 16

Around park.

... Wooded island,

April 24

<sup>&#</sup>x27;Mr. Foster is General Superintendent of the Park Systems under the South Park Commissioners, Clacago, Ill.

Loggerhead shrike	Wanded island	March б
Y 11 Also de de colo	11 1 1 1 1 1	
Yellow-throated vireo Black and white warbler	Wooded Island.	
Black and white warbler .	Around park.	April 15
Prothonotary warbler Lawrence warbler Xashville warbler	Wooded island	April 28
t	111 1 1 1 1 1	
Lawrence warmer	Wooded Island.	*
Nashville warbler	Wooded island.	April 28
Tennessee warbler	Wood of sland	Max 17
Description of the second	Wooded island, Wooded island, Wooded island,	*
Parula warbler .	Wooded Island.	
Cape May warbler	. Wooded ishind.	April 39
Yellow varbler	Wooded island.	April 27
Black-throated blue warbler		May 4
Myrtle warbler	Wooded island.	April 6
Magnolia warbler	Wooded island.	Max 2
Chestnut-sided warbler		Max
Chestunt-sidea warmer	. Wooded Island.	
Bay-breasted warbler	Wooded island.	April 29
Blackburnian warbler	Wooded island.	May
Black-throated green warbler.		Max 1
Diack-emoated green warmer.	Wooded Island.	
Palm warbler	Peninsula.	$\lambda$ pril 21
Palm warbler	Peninsula.	May 6
Oven-bird	Wasslad island	April 28
Tar and the same of the same o	Wooded Island.	
water thrush	Wooded Island.	Max
Connecticut warbler	Wooded island.	Mary 17
Maryland vellow throat	Parineula	May 2
4 and 11 and and 11	1 1 1 1 1 1	
Water thrush	. A costed 4shand,	
Redstart	. Wooded island	April 27
Cathird	Around nork	
Day and the sale of	A CALIFORNIA PAGE	
Brown thrasher House wren	Viound Park.	
House wren	Wooded island.	April 25
Winter when	Manufact in Land	April 14
Brown creeper	117 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Prown creeber	. Wooded Island.	
White-breasted muthatch	Wooded island.	March 1
Red-breasted nuthatch	Wooded island.	April 26
Black-capped chickadee	Amountal months	March 1
DEACK-capped chickanee	Around park.	
Golden-crowned kinglet	Around park.	April 6
Ruby-crowned kinglet Blue-gray gnatcatcher	. Around park.	April 6
Blue-arry anatesteher	Washal bland	April 15
Tride-gray graceactici	Whoded Island.	
Wilson thrush	Wooded Island.	May 1
Olive-backed thrush	. Wooded island.	April 27
Hermit thrush	Wooded island.	Ajril 6
Robin	Around park.	March 14
Blue bud	Wooded island	
Herring gull	Around park.	March 1
	1	
American mergansers	lagoons.	March 8
Old squaw duck	Lagnous.	March 14
Blue winged teal	Lagoons.	March 18
American goldeneye		March 19
Pied-billed grebe		March 25
Red-breasted mergansers	Lagoons.	March 30
Lesser seum duck	Lamouts	March 30
Lesser scaup duck Ring-necked duck	Lacour	
Rang-necked duck	Lagoous,	March 31
Builleheads	[,12001)>,	April 1
Buffleheads Bonaparte gull	Around park.	April   1   April   6   April   6   April   6   April   7
Woodcock	Wooded island.	April
		April 17
Broad-winged hawk	. South edge of park.	April 6
Screech owl .	. South edge of park. Voo led island.	April 7
Hooded merganscr	Auguons,	March 31
Kildeer .	Around park.	March 31
Sparrow hawk	Around park.	April 11
Sharp-shinned hawk		April 14
Cooper hawk		April 18
TO THE TANK	stroung park.	
Ruddy duck	Lagoons.	April 18
Spotted sandpiper	Around park.	April 18
Wilson snipe	Wooded island.	April 18
		. 1
Coot	Lagoon.	April 15
Ring-billed gull	Around park.	April 21
	, Largoon,	April 21
	Amount coul-	
Red-shouldered hawk	aroung park.	April 21
Green heron	Around park.	April 21
Florida galinule	Lagoon.	April 25
Common tern	Around neek	April 25
Common tern American bittern	337 1 7 1	
American bittern	Wooded Island.	April 28

Care has been exercised in selecting for plantation many shrubs having berries of different sorts furnishing the birds with considerable food during most of the year and many birds are very likely attracted to the parks through them.

The benefits derived from the presence of insect eating birds in the parks as an assistance towards protecting trees and bushes from the ravages of harmful insects is very great. There is no doubt but what the effort made by the Park Commissioners to attract birds to come and stay in the parks has resulted in a very great increase in the interest in birds shown by the people visiting the parks.

## CULTURE OF THE EXHIBITION CHRYSANTHEMUM.

By Ernis, Romsson, Conviction.

I will endeavor to give you, as near as I can, a talk on this subject, touching on the chief cultural details, in the production of the large blooms of today. I am often asked the question, "What bud would you take such a variety on, and on what date"? "What is your opinion of such a variety"?

In the first place it must be understood that one cannot be governed by any hard and fast rule, as there are no two conditions alike, such as soils, housing, and different localities. The only way to ascertain just what varieties will do in your locality and under your conditions, is to try out a number of varieties, and treat them in different ways. This will take a season of experiments to prove just what varieties are suitable, and prove satisfactory.

I have adopted this method, and find I have been well paid for my trouble. You can be governed by acting on the advice, given by the Mum Specialists in their lists to a certain extent, as they give a fairly good idea just what bud is necessary.

Procure some good, turfy sod, three to four inches thick, and stack, grass down, putting a good layer of cow manure between the layers of sod. This, of course, is better done a year ahead, to allow the compost to be half decayed, thus doing away with all weeds, etc. The chrysanthemum likes a fairly good, heavy loam, but must be fibrous, and well drained, to keep the soil sweet.

After plants have done flowering, cut down close, and give them a few weeks' rest. But do not dry off entirely. It is well to bear in mind that this stock is the foundation of your success the following year, therefore, give them good quarters in a temperature of 40 degrees, well up to the light, and always be on the lookout for any pests, which are liable to cripple the young cuttings. One month before you intend to take your first batch of cuttings, raise your temperature to 45-50 degrees, and give them a more liberal supply of water.

Select only the healthy cuttings of each variety, and make cuttings about three inches long, not over, be sure to use a sharp knife, and take out bottom eye without injuring the base. This, I think, is very rarely carried out, even with some of our exhibitors. It does away with that bunch of rootlets, which, in some cases, fills up your pots with useless material, thus taking most of the nourishment there is in the soil. Insert cuttings in sand in some shady corner of the house, and do not keep close. A temperature of 50 degrees, without bottom heat, is all that they require. Keep young stock sprayed over, but be sure they are dry at night. Shade, if necessary, from the sun. Pot up when rooted singly in 21/2-inch pots, in a compost consisting of 3/3 loam and 1/3 leaf mold, and a dash of sand. Do not apply any fertilizer in soil at this stage. Shade from the sun a few days, and keep a little overhead moisture about as before, then give them all the light obtainable, and a little more room, as they develop into nice, stocky plants. Air according to weather, and do not allow any draughts to strike them. When they have well filled the pots with roots (not to become pot-bound), give them a move into four-inch

Do not pot deep, as the roots will readily enough find

Society. Continued on page 400.)

#### THINGS AND THOUGHTS OF THE GARDEN.

(Continued from page 442.)

New York is lamentably deficient in these indoor horticultural attractions. In visiting the garden one day recently, I was amused to notice how the naming here differs from what is generally current, or what one will find at the Brooklyn Botanical Garden, for instance. Each of these gardens are under public control, and at least they are both in Greater New York in the same town, so to speak, but at different ends of it. Why, then, should there not be uniformity in the nomenclature? Here are some examples I made note of in a very short stroll, without searching for these differences

Spiraea Lindleyana labeled Schizonotus Lindleyana. Funkia subcordata grandiflora labeled Niobe plantaginea.

Funkias all named Niobe.

Cuphea ignea labeled Parsonia ignea.

Liatris species labeled Lacinaria.

Euphorbia corollata labeled Dicrophyllum margina-

Vinca roseus-oculata labeled Ammocalis roseusoculata.

Botanists are notorious for the changing of names, "Just to justify their existence," as some of the laity perhaps rather unkindly has said. But we of the humble gardening fraternity, and especially the florist and nurseryman, surely deserve more consideration than the systematists have so far exhibited. We use plant names as much as they, and we are as a thousand to one of the scientific botanists. Protests have not been wanting, but so far have been in vain. One gets the impression that the man of the microscope and vasculum looks upon the horticulturist as an inferior creature to himself, and has seldom or never tried to explain or justify the changing of old established names, so far as my observation has extended. I believe that quite a number of the changes are made in accordance with the international rule of priority. Under this rule, or by virtue of it, if a botanist, be he ever so young or indistinguished, finds in his researches that some earlier botanist had given a name to a plant which, we will say, is at present known as Lasiandra, and that the earlier name was Tibouchina, he at once sets about "correcting" the matter, and out comes Tibouchina for us all to learn and remember. As all good gardeners like to keep abreast of progress, the new name is mentally noted, and if one converses with a really intelligent fellow craftsman, most likely the new name will be the one mentioned, usually with the remark that the old name has been dropped. But when, a short time later, one finds still another name substituted for Tibouchina, the name this time being Pleroma, our faith in the skilful research and care of the botanists receives a jolt, and, to say the least, the mere gardener gets a bit tired. This is an actual instance of the last few years. Nothing is sacred to the re-novating hand of Mr. Botanist. Even our old friend the Boston Ivy or Ampelopsis Veitchii, which most of us also know is called Vitis inconstans, thus classing it with the Grape vine family, where one would say it very reasonably belongs, has been rebaptized, and now bears the euphonious title, Parthenocissus quinquefolia. In regard to all this, will the botanists deny that they have made changes far too hurriedly in some instances; will they deny that they have seized on hairsplitting differences many, many times; and will they deny the futility of these changes so far as the general

adoption of them is to be considered? Had I taken due note of all I have seen, heard and read of in regard to the changing of names in the last fifteen or twenty years some curious things would have to be recorded, not all of them flattering to the herbarium fellows. But after all we're only gardeners and don't under-

The new Pelargonium Clorinda, which many might simply call a Geranium, is another of those plants that have taken far too long to become generally known and grown. Notwithstanding all the advertising that both Chas. H. Totty and the Messrs. Vincent gave to this fine plant some time ago, its great merits have been largely overlooked. Many will also remember the plants of it that were shown at New York spring show by Mr. Lewis and others. These were very fine indeed, yet they merely outlined, as it were, the possibilities. Some years ago I saw Pelargonium Clorinda shown as a standard, three feet or more in height, with an umbrella head. The plants were only in ten-inch pots, but bearing, as they did, a perfect crown of pink trusses, their beauty, combined with the delightfully scented leaves, can well be imagined. It is just one of the easily grown, free flowering plants that we all ought to have, and when we have it we should grow it to the highest perfection.

#### CULTURE OF THE EXHIBITION CHRYSANTHEMUM.

(Continued from page 465.)

their way to the drainage, which has to be avoided. According to the value of your compost, one must be governed accordingly in the use of commercial fertilizers, and the mistake is often made in using them to excess. Thus causing gross, sappy growth, resulting in the blooms damping, and in some varieties the buds will not develop. Although most exhibition growers are prepared to lose at least 20 per cent. of their blooms through high feeding.

In taking the buds, no hard and fast rule can be applied, as some varieties are apt to act differently in certain localities. Experience, as I have already stated, is the best teacher in this respect. In some varieties, they will show bud in their 4-in. pots. This, to some extent, is caused by taking stem cuttings and tops, which is not practicable. Disbudding must be carried out during their growing period, and should never be neglected. Buds should be taken from August 1st to 7th day of September, according to location and variety. I have always found that in late varieties buds taken the latter part of August are the most satisfac-

One must always be on the lookout for black and green flies, which secrete themselves in the tips of the young growth; also numerous other pests. To combat these, a spraying of Aphine weekly, getting well under the foliage, and in the points, is a sure remedy, and a good preventative. Red spider is one of the worst enemies, but by keeping the house as cool as possible during the summer months and a good pressure of water several times during hot days, is the best prevention. A weak solution of soot water sprayed through the plants is beneficial. Mildew is likely to appear later on in the year, when the nights get cooler, and they are subjected to draughts. A spraying or two of Fungine will soon rid them of this. As soon as the color shows in the bud. the house must be kept dryer, spraying discontinued, and such varieties which bleach with the sun, should be shaded.

#### NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st., N. Y.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Dahlia Society. Joseph J. Lane, secretary, 11 West 32d st., N. Y.

American Gladiolus Society. Henry Yonell, secretary, Syracuse, N. Y.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 40 West 28th st., N. Y.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

Women's National Agricultural and Horticultural Association.

Miss Margaret Jackson, secretary, Englewood, N. J.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society.

W. G. Carter, secretary, Bernardsville, N. J. First Monday every month, Horticultural Hall, 7:30 p. m., Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Cleveland Florists' Club.

Frank A. Friedley, secretary, 95 Shaw avenue, East Cleveland, Ohio. Second Monday every month, Hollenden Hotel, Cleveland, Ohio.

Cincinnati Florists' Society.

Alex. Ostendorp, secretary, Cincinnati, Ohio. Second Wednesday every month, Jabez Elliott Flower Market.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Detroit Florists' Club. R. H. Wells, secretary, 827 Canfield avenue. Detroit, Mich.

Dobbs Ferry Gardeners' Association. B. Harms, secretary, Dobbs Ferry, N. Y. Last Saturday every month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls, N. Y.

May and June, Poughkeepsie, N. Y.

Elberon Horticultural Society.

George Masson, secretary, Oakhurst, N. J. First Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Essex County Florists' Club.

John Crossley, secretary, 37 Belleville avenue, Newark, N. J.

Third Thursday every month, Kreuger Auditorium.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass. Second Tuesday every month.

Florists' and Gardeners' Club of Rhode Island.

William E. Chapell, secretary, 333 Branch avenue, Providence, R. I. Fourth Monday each month, Swartz Hall.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Gwynn Falls Park. Sta. F, Baltimore, Md.

Second and fourth Monday every month, Florist Exchange Hall.

Gardeners and Florists of Ontario. Geo. Douglas, secretary, 189 Merton street, Toronto, Canada.

Third Tuesday every month, St. George's Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York City.

Monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Houston Florists' Club.

A. L. Perring, secretary, 4301 Fannin street, Houston, Texas.

Meets first and third Monday, Chamber of Commerce Rooms.

Lake Geneva Gardeners' and Foremen's Association.

Raymond Niles, secretary, Lake Geneva, Wis.

First and third Tuesday every month, Oct. to April: first Tuesday every month, May to Sept., Horticultural Hall.

Jenox Horticultural Society. John Carman, secretary, Lenox, Mass. Second Wednesday every month.

Los Angeles County Horticultural Society. Hal, S. Kruckeberg, secretary, Los Angeles, Cal.

First Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society. Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Minnesota State Florists' Association. Third Monday every month, Bemb Floral Gust, Malmquist, secretary, Fair Oaks, Minneapolis, Minn. Third Tuesday every month.

> Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Fourth Friday every month, Red Bank.

Montreal Gardeners' and Florists' Club. Second Wednesday every month except W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J.

Second Wednesday every month, except July and August, 8 p. m., Madison, N. J.

Nassau County Horticultural Society. Harry Jones, secretary, Glen Cove, N. Y. Second Wednesday every month, Pembroke Hall, 7 p. m.

New Bedford Horticultural Society. Jeremiah M. Taber, secretary, New Bedford, Mass.

First Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street, Orange, N. J. First Monday every month, Jr. O. W. A.

M. Hall., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London. Conn.

Second Thursday every month, Municipal Bldg.

New Orleans Horticultural Society. C. R. Panter, secretary, 2320 Calhoun street, New Orleans, La.

Third Thursday every month, Association of Commerce Bldg.

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club. John Young, secretary, 54 W. 28th street, New York.

Second Monday every month, Grand Opera House.

North Shore Horticultural Society. Leon W. Carter, secretary, Manchester, Mass.

First and third Fridays every month.

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society.

M. J. O'Brien, secretary, Mt. Kisco, N. Y. Third Thursday every month, except June to August, at 8 p. m.; December to February, 3 p. m.

Oyster Bay Horticultural Society. A. R. Kennedy, secretary, Westbury, L. I. Fourth Wednesday every month, Oyster Bay, N. Y., 7:30 p. m.

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 432 Phelan Bldg., San Francisco, Cal.

First Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month.

Paterson Floricultural Society. Sebastian Hubschmitt. Jr., secretary, 61 Seventh ave., Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society. David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

Third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut st., Paterson, N. J.

First and last Friday every month, Working Man's Institute, Paterson, N. J.

Philadelphia Florists' Club.

David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

First Tuesday every month, Horticultural Hall, 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. First Tuesday every month, Fort Pitt

Redlanrs (Cal.) Gardeners' Association. Jas. McLaren, secretary, Box 31 R. F. D. No. 2, Redlands, Cal.

Rhode Island Horticultural Society. E. K. Thomas, secretary, Box 180, Kingston,

R. I. Third Wednesday every month, Public Library, Providence, R. I.

Rochester Florists' Association. H. R. Stringer, secretary, 47 Stone street, Rochester, N. Y.

Second Monday every month, 95 Main street, East.

Shelter Island Horticultural and Agricultural Society.

First and third Thursdays every month

Southampton Horticultural Society. Julius W. King, secretary, Southampton, N. Y.

First Thursday every month, Oddfellows Hall.

Tacoma Florists' Association. F. H. Atchison, secretary, South 50th and East F street, Tacoma, Wash.

Third Thursday, Maccabee Hall, 11th and C streets.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarrytown, N. Y. Last Tuesday every month, 7:30 p. m.

Texas State Horticultural Society. G. H. Blackman, assistant secretary, College Station, Texas.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park.

First Wednesday every month.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington. D. C. First Monday every month.

Yonkers Horticultural Society.
Thos. Mahoney, secretary, Yonkers, N. Y First Friday every month, Hollywood Inn., 8 p. m.

Westchester and Fairfield Horticultural Society.

J. B. McArdle, secretary, Greenwich, Conn Second Friday every month, Doran's Hall. Greenwich, 8 p. m.

#### GARDEN CLUBS

International Garden Club. Miss Mary M. Kearney, secretary, 123 East 53rd street, New York. Club House, Bartow Mansion, Pelham Bay Park, N. Y.

The Garden Club of America. Mrs. J. Willis Martin, president, 1721 Locust street, Philadelphia, Pa.

The Garden Club of Alma, Mich. Mrs. E. J. Lamb, secretary, 803 State street.

Twice a month at members' residences. The Garden Club of Alleghany County, Pa. Mrs. F. H. Denny, president. Sewickley, Pa.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich. Miss Annie Condon, secretary, 920 University avenue.

The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle, secretary, Gladstone, N. J.

Second and fourth Thursdays, middle of April to November. August excepted.

The Garden Club of Cleveland, Ohio. Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Mrs. F. K. Holister, secretary, East Hampton, N. Y.

Mrs. John W. Paris, president,
Flushing, N. Y.
Second and fourth Mondays, members'

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob. Conn.

At members' residences.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson

P. O., Md. First and third Thursdays, April to December at members' residences.

The Gardeners of Mont. and Dela. Counties,

Miss Elizabeth D. Williams, secretary, Haverford, Pa. At members' residences.

The Weeders' Club, Pa. Miss Ellen Winsor, secretary, Haverford, Pa.

First and third Wednesday at members' residences.

The Garden Club of Lake Forest, Ill. Mrs. Tiffany Blake, president, Lake Forest, Ill.

The Larchmont Garden Club, N. Y. Mrs. Edgar Park, secretary, Larchmont, N. Y. First Thursdays.

The Garden Club of Lawrence, L. I. Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass. Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York.

First and third Mondays, June to October at Lenox.

Lewiston and Auburn Gardeners' Union. Mrs. George A. Whitney, secretary, Auburn, Me.

The Garden Club of Litchfield, Conn. Mrs. Henry S. Munroe. secretary, 501 W 120th street, New York.

Second Friday, June to October at Litchfield.

The Garden Club of Michigan.

Miss Sarah W. Hendrie, secretary, Grosse Pointe Farms, Mich.

At members' homes. Two Spring and one Fall Shows.

The Millbrook Garden Club, N. Y. Mrs. Keyes Winter, secretary, 125 E. 78th street, New York.

Meet at Millbrook, Dutchess County, N. Y.

The Bedford Garden Club, N. Y. Mrs. Benjamin W. Morris, secretary, Mt. Kisco, N. Y.

The Garden Club of New Canaan, Conn. Mrs. Francis H. Adriance, secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I. Miss Dorothea G. Watts, secretary, New-

port, R. I.
Annual Meeting, August. Others when called. Five monthly summer shows.

The Newport Garden Club. Mrs. Chas. F. Hoffman, president, 620 Fifth avenue, New York.

The Garden Club of New Rochelle, N. Y. The Park Garden Club, of Flushing, N. Y., Mrs. Lucius W. Hitchcock, corresponding secretary, Premma Point Park. Members residences and Public Library. Shows monthly, May to November.

> The Garden Club of Norfolk, Conn. Philemon W. Johnson, secretary, Norfolk, Conn.

> Second Wednesday each month at Public Library.

> North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa. Miss Ernestine A. Goodman, secretary, Chestnut Hill.

The Garden Club.

Mrs. Aubrey Pearre, Jr., secretary, Pikesville, Md.

The Garden Club of Princeton, N. J. Mrs. Junius Spencer Morgan, secretary, Constitution Hill, Princeton, N. J.

The Garden Club of Ridgefield,  ${\tt Conn.}$ Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York.

Twice monthly at Ridgefield. Also exhibitions.

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood, N. J.

Rumsen (N. J.) Garden Club. Miss Alice Kneeland, secretary Rumson, N. J.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md.

The Garden Club of Rye, N. Y. Mrs. Samuel Fuller, secretary, Rye, N. Y. First Tuesdays, April to October. Also special meetings and Flower Shows.

The Shedowa Garden Club, New York. Miss Mary Young, secretary, Garden City, N. Y.

Second Wednesday each month at members' residences. Vegetable and flower shows, June and September. Correspondence with other clubs invited.

## Shorburn's Bulb Catalogue



Send for yourcopy. Our bulbs are fullsize, true to name and very beautiful.

We have a really wonderful assortment of 66 of our

choicest bulbs for \$1.00. You may send a dollar bill, pinned to your order, at our risk.

To those who love flowers and "growing things," as all gardeners do, our Bulb Catalogue will be a revelation. Send for it today.

#### J. M. Thorburn & Co.

53C Barclay Street, through to 54 Park Place, New York



Short Hills Garden Club, N. J. Mrs. C. H. Stout, secretary, Short Hills, N. J. Weekly at Short Hills Club House Flower Shows April and June, and annua Dahlia Show.

The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W. 33rd street, New York.

Twice a month in summer at Southampton, L. I.

The Staten Island Garden Club, N. Y. Mrs. J. Harry Alexander, secretary, Rosebank, S. I.
Twice a month. At members' homes.

Winnetka, Ill.

The Garden Club of Trenton, N. J. Miss Anne MacIlvaine. secretary, Trenton, N. J.

Bi-monthly meetings at members' resi-

The Garden Club of Illinois. Mrs. William G. Hibbard, Jr., secretary, Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.
Mrs. Morris Rutherford, secretary, Warrick.

Orange County, N. Y.

Warrenton Garden Club, Virginia. Mrs. C. Shirley Carter, secretary, Warrenton, Va.

#### HORTICULTURAL EVENTS

Fourth National Flower Show, under the auspices of the Society of American Flor ists and Ornamental Horticulturists, Philadelphia, Pa., March 25 to April 2, 1916.

International Flower Show, Grand Central Palace, New York, 1916.

American Rose Society, Fall Show, Cleveland, Ohio, November 10-14.

Chrysanthemum Society of America. An nual Show, Cleveland, Ohio, November 10-14. 1915. Special Show, San Francisco, Cal.

Cleveland Flower Show, Coliseum, Cleveland, Ohio, November 10-14, 1915.

Chicago Fall Flower Show, Coliseum, Chi-. ago, HL, November 9-14.

American Institute, Annual Chrysanthe mum Show, Engineers' Building, New York November 3, 4, 5.

Dutchess County Horticultural Society, Annual Flower Show, Poughkeepsie, N. J. October 28-29.

Horticultural Society of New York, Annual Fall Show, November 4-7, 1915.

Lenox Horticultural Society. Fall Show. Lenox, N. Y., October 26-27.

Massachusetts Horticultural Society. Autumn Show, Boston, November 4-7.

Menlo Park (Cal.) Horticultural Society. Fall Show, Menlo Park, Oct.

Morris County Gardeners' and Florists' Society, Annual Fall Show, October 28, 29. Madison, N. J.

Nassau County Horticultural Society, Fall Show, October 28-29. Pembroke Hall. Glen Cove, N. Y.

New Bedford Horticultural Society, Dahlia Show in September. Chrysanthemum Show in November. New Bedford, Mass.

New London Horticultural Society, Chrysanthemum Show, November 3-4, 1915. New London, Conn.

North Westchester Co. Horticultural and Agricultural Society, Chrysanthemum Show, Mt. Kisco, N. Y., October 29-31.

Oyster Bay Horticultural Society, Chrysanthemum Show, November 2.

Paterson Floricultural Society, Chrysan-menum Show, November, Y. M. C. A. themum Show, November, Y. Building, Paterson, N. J.

Pennsylvania Horticultural Society, Chrysanthenium Show, Philadelphia, November

Monmouth County Horticultural Society. Annual Flower Show, Red Bank, N. J. Oc-

Rhode Island Horticultural Society, November exhibition, November 11, 12. ragansett Hotel, Providence, R. I.

Tarrytown Horticultural Society, Annual Fall Show, November 3, 4, 5, Tarrytown,

Texas State Flower Show, Houston, Texas, November 18-21.

Westchester and Fairfield Horticultural Society, Fall Show, Stamford, Conn., No-vember 2-3, 1915.

If you are a member of a local horticultural society or a garden club and do not find the report of your association's meetings or other events of it in our columns, their omission is due to the fact that your secretary has not sent them in. Get after him!

#### OYSTER BAY HORTICULTURAL SOCIETY

The regular monthly meeting of the Oy ster Bay Horticultural Society was held in Fireman's Hall, Oyster Bay, on September 22, 1915. President presided, Mr. George Alcock was elected to active

### Swas-Teeka Cannas Star Roses

THE Wintzer Cannas-Fine, fat clumps of the hardiest varieties. We have now full stock of all the best ones.

The Roses—All C & J quality. Stocky, sturdy plants.

Send now for complete list of both Cannas and Roses, before making up your Fall order.

#### The Conard & Jones Co.

Swas-Tecka Brand Cannas Star Brand Roses

West Grove, Pa.

and Mr. George Hastings to associate membership.

The exhibition tables were well filled with fruit, flowers and vegetables. president appointed Messrs, Gale, Duckham and Ford, who turned in the following report, which was read and accepted: Society's prize, 6 tomatoes, Chas. Milburn; society's prize, 12 dahlias, James Duthie; society's prize, 6 apples, James Duthie; dahlias, honorable mention, John Sorosick; dahlias, Jos. Robinson, honorable mention; 2 vases antirrhinum, Chas. Milburn, thanks of society; vase of marigold, Chas. Milburn, honorable mention; 18 varieties roses, David Hothersall, cultural certificate; vase of gladiolus, Alfred Walker, honorable mention; celery, A. Yanuchi, honorable mention.

Prizes weer received from I. Hicks & Son, Frost & Bartlett Co., Vaughan's Seed Store. Exhibits for next meeting will be 3 chrysanthemums, one variety, 2 cauliflower, 3 celery.

The Dahlia Show to be held on October 5 and 6 bids fair to be the best in the history of the society. Schedules for the Dahlia and Chrysanthemum Shows to be held on November 2 are now ready.

A. R. KENNEDY, Secretary.

#### MENLO PARK (CAL.) HORTICULTURAL SOCIETY.

In the absence of the president the meeting was called to order by Vice-president Slade. There were thirty members present.

There were only three exhibits in the monthly competition, which was the smallest number since the competition started. G. Nunn secured 79 points for Lilium Speciosium Rubrum; D. Slade 76 points for tomatoes, and D. Bassett 80 points for a display of sweet peas. Mr. Bassett had been picking from the vines since early in May. They are grown on the single stem system. and had reached the top of 10-foot bamboo canes, were tied down and almost reached the top again, making a growth of almost 20 feet. Mr. Bassett won the championship of California shield at the Exposition sweet pea show last June with peas picked from the same vines. Several of our members have become very enthusiastic over sweet peas, and great things are predicted next year.

Special prizes donated for the fall show were as follows: C. C. Morse & Co., \$25; Halliwell Seed Co., silver cup; Lynch Nursery Company, gold medal; Hawaiian Fertilizer Company, one-quarter ton high grade fertilizer; Aphine Manufacturing Company, silver and glass flower vase, and the Na tional Association of Gardeners, medal. We have promises of several others. Everything looks like the most successful show we have ever held.

Great disappointment was felt by the members in not being able to have the pleasure of entertaining the visiting members of the N. A. of G. to a barbecue and an automobile trip around some of the principal private estates at Menlo. But the attractions were so numerous at the Exposition, and the time so short, that the few members who made the trip had to decline the invitation.

A communication from Co-operative Committee N. A. of G. suggesting the free transfer of members in good standing from one horticultural society to another was very favorably received and endorsed by the members

H. Halliwell, of Halliwell Seed Company,

was elected to active membership.
PERCY ELLINGS. Secretary.

#### NASSAU COUNTY HORTICULTURAL SOCIETY.

The Annual Dahlia Show of the Nassau County Horticultural Society was held in Pembroke Hall, Glen Cove, Thursday, October 7. Some very fine exhibits were staged and competition in the different classes was very keen. Following is a list of different classes and winners: Dahlias, Harry A. Drew Special, 1st, Mrs. W. J. Matheson, Huntington (gardener, J. Kirby); 2nd, Mrs. H. I. Pratt (gardener, F. O. Johnston). Ernest J. Brown Special peony flowered dahlias, 4 varieties: 1st, Mrs. H. Darlington, Mamaroneck (P. W. Popp, gardener); 2nd, Mrs. H. I. Pratt. Twelve cactus: 1st, Mrs. W. J. Matheson; 2nd, Mrs. Darlington. Twelve decorative: 1st, Mrs. Darlington; 2nd, Mrs. Matheson. Vase of singles: 1st, Mrs. Darlington; 2nd, Mrs. Brewster, Glen Cove (gardener, Harry Goodband). Twelve decorative: 1st, Mrs. Darlington; 2nd, A. Golon. Six peony flowered: 1st, Mrs. F. S. Smithers (gardener, V. Cleres); 2nd, Mrs. C. D. Smithers, Glen Cove (gardener, P. Chabon-Six cactus, long stems: 1st, Mrs. F. S. Smithers; 2nd, Mrs. H. I. Pratt. cactus: 1st, F. W. Woolworth (gardener W. D. Robertson). Decorative vase: 1st, Mrs. F. S. Smithers; 2nd, J. B. Taylor (gardener, G. Wilson). Vase of show: 1st, Mrs. F. S. Smithers; 2nd, J. B. Taylor. Twelve any type: 1st, Mrs. F. S. Smithers; 2nd. Mrs. F. S. Smithers.

Roses-Mrs. E. M. Townsend Special: 1st, T. Pratt (gardener, J. W. Everitt). W. R. Kinnear Special: 1st, Mrs. Smithers; 2nd, Dr. Ayres, Glen Cove (gardener, H. Jones). Twelve outdoor roses: 1st, Mrs. F. S. Smithers; 2nd, Mrs. H. I. Pratt. Outdoor flowers, best collection not more than 25 species: 1st, Mrs. G. D. Pratt (gardener, J. F. Johnston); 2nd, J. W. Woolworth. Vase of hard aster: 1st, Mrs. J. Otley.

Vegetables-Stump & Walter Special, 12 varieties: 1st, W. R. Coe, Oyster Bay (gardener, J. Robinson). Six varieties: 1st, Mrs. Otley; 2nd, J. B. Taylor; 3rd, E. Kimball. Nine varieties: 1st, Mrs. H. L. Pratt (gardener, H. Gault); 2nd, W. R. Coe.

Collection of outdoor fruit-lst, Mrs. H. I. Pratt.

The class for table decoration brought out some strong competition, there being 8 entries, 1st prize being awarded to R. Jones;

2nd, to J. Adler; 3rd, to H. Jones.

Judges were Messrs. James Bell, Thos. Griffin and William Vert.

JAMES GLADSTONE, Corresponding Secretary.

#### MAPLEWOOD (N. J.) DAHLIA SHOW.

The first annual dahlia show, under the auspices of the Maplewood Dahlia Society, proved a gratifying success to those who had the affair in charge. The society has decided to make the show an annual event. The question of holding a rose show in the spring is also discussed.

There was a large attendance both afternoon and evening. The judges had a task in deciding the winners, because of the excellence of the different displays. judges included William Reid, of Orange; John Garvin, of West Orange, and Deitrich Kindscraft, of Orange.

The winners were:

Twelve dahlias, four varieties. First, Mrs. John R. Le Count; second, Frank E. Taylor. Best six show dahlias, in three varieties. First, George H. Stevenson; second, Walter

tt six decorative dahlias, in three varie-First, Mrs. Le Count; second, Mr. Lawties.

six dahlias, in three varieties. First, Braun; second, Miss Margaret Comerford



#### G. D. TILLEY

#### Naturalist

"Everything in the Bird Line from a Canary to an Ostrich'

The

DORRA

Birds for the House and Porch Birds for the Ornamental Waterway Birds for the Garden. Pool and Aviary Birds for the Game Preserve and Park

I am the oldest established and largest exclusive dealer in land and water birds in America and have on hand the most extensive stock in the United States.

G. D. TILLEY, Naturalist, Box 10, Darien, Conn. Someonionio consecutado con contrata de la consecutación de la consecuente de la consecuencia de la consecución





Burpee's Annual for 1915

tells the Plain Truth about Burpee-Quality Seeds. It is mailed free. Write for it today, - "Lest you forget." A postcard will do. W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia.

### lant for Immediate Effect Not for Future Generations

TART with the larg-STAR1 with the secured state of the secured se twenty years to grow many of the Trees and Shrubs we offer.

We do the long waiting —thus enabling you to secure trees and shrubs that give immediate re-Price List now sults. ready.



INDORRA I IURSERIES Wm.Warner Harper Proprietor

Best four show dablias, one of more varieties. First, Mr. Braun't second, A. A. Earle, Best four decorative cabbas, one or more varieties. First, Mrs. W. P. Denel't second, Mr. Earle,

Mr. Earle.

Rest four cactus dablias, one or more varle
ties. First, Mr. Stevenson; second, Miss Com

Tiest pink show dablias, one variety. Tiest, Arthur W. Pohlmann; second, Mrs. A. G.

Nathur W. Tommann, second, Mrs. A. G. Seymour,
Vase of six fancy show dahlias, First, Miss Comerford.

Comertord.

Best vase of six fancy decorative dahlias
First, J. H. Ayars,
Best vase of six cactus dahlias - First, E. B.

Phelps.

Phelps, Special prizes were awarded to William A, Manda, Mrs. W. W. Woolsey, Bugo Volening, Walter M. Gray, Mrs. C. H. Stout, Fred R. Gefken.

#### SHORT HILLS, N. J., DAHLIA SHOW.

Dahlias in large numbers and many varicties were exhibited at the annual show of the Short Hills Garden Club at the Short Hills Club, Short Hills, N. J., September 28

Amateur exhibitors only are eligible to compete for the prizes, but there were several professional exhibits. A luncheon was served at the club at noon by the Short Hills organization to visiting garden club members from Princeton, Madison, Bernardsville, Trenton, Tuxedo, N. Y., and other places, who numbered about 100.

The judges were Mrs. T. Henry Dixon, Philadelphia; Miss Anne McIlvaine, Tren ton, and Arthur Herrington, Madison.

Following is the list of classes and prize winners:

Cactus dahlias. First, Mrs. Edward G. Layng; second, Mrs. Lang; third, Mrs. John A. Stewart, Jr. Decorative table. First, Mrs. William K. Wallbridge; second, Mrs. Will Bradley; third, Mrs. Walter Lawrence.

Artistically arranged table. First, Mrs. Edward B. Renwick; second, Mrs. John A. Stewart, Jr.; third, Mrs. Charles H. Stout.

Single dahlias, First, Mrs. Charles H. Stout; second, Mrs. Layng; third, Mrs. Stewart.

Best vase of dahlias, First, Mrs. William K. Wallbridge; second, Mrs. Layng; third,

Mrs. Stewart.

Peony flowers, ond, Mrs. Layng, First, Mrs. Stewart; sec-

Three bloom, three varieties. First, Mrs. Layng; second, Mrs. Stout; third, Mrs. Walter Lawrence.

Seedlings, First, Mrs, Edward B. Renwick; second and third prizes, Mrs, Tysilio Thomas.



#### THE CLEVELAND FLOWER SHOW.

Everybody is talking of Cleveland at this time, because of the nearness of the big Flower show, that has probably received more advance publicity than any similar event held in an inland city heretofore.

The various committees have done strenuous work since the 1st of March, and, according to all indications. the outlook for the success of this event, under the auspices of the Ohio Horticultural Society, the Cleveland Florists' Club and the Garden Club of Cleveland, is very

The annual meeting of the Chrysanthemum Society

of American will be held on Thursday, November 11. Friday, November 12, will be the Fall meeting of the American Rose Society, and also an executive committee meeting of the American Carnation Society will take place.

The committee has obtained the consent of several large growers to have new plants named at the show. One of these will be a new Dixon rose, grown in this country by Chas. Totty, also several new Totty chrysanthenums, and a number of chrysanthenums grown by Elmer D. Smith, of Adrian, Mich., and E. G. Hill Co., of Richmond, Ind. They will adopt some novel methods for choosing suitable names for these new blooms.

Those intending to take the trip in the east should get in touch with Mr. John Young, secretary of the New

York Florists' Club, or Chas. Henry Fox, of Philadelphia, and Henry Penn, of Boston, as special parties are being formed from these points.

The Cleveland Flower show will be well worth seeing, and we urge a large attendance of superintendents and gardeners of eastern private estates, as it will enable them to inspect some of the model places in the suburbs of the Sixth City.

#### CHRYSANTHEMUM SHOW IN EXPOSITION.

The first of a series of monthly flower shows and lectures on the subject of the cultivation of flowers will be held at the Country Life Permanent Exposition, Grand Central Terminal Building, New York City, on November 1-2.

The first show will consist of a chrysanthemum exhibit. Charles H. Totty, of Madison, N. J., recognized as one of the foremost authorities in this country on chrysanthemum growing, will deliver a lecture on the first day, Monday, November 1, on "The Cultivation of Hardy Chrysanthemums."

Suitable prizes will be offered to private and amateur gardeners in competition. Trade exhibits will be invited, but not for competition. An invitation is extended to all garden lovers to attend the show and lecture, to which there will be no charge.

# Bon Arbor Chemical Co.

PATERSON, N. J.

#### Manufacturers of

**BON ARBOR No. 1.** Soluble Plant Life. A most wonderful and invigorating food for all plants, indoor and outdoor.

BON ARBOR No. 2. Best dressing for your lawns.

RADIX WORM ERADICATOR. Instantly removes worms from your Tennis Courts, Putting greens, etc.

**ANT DESTROYER.** Will remove all ants outside or indoors in a week's time. Be sure and try it.

NATURAL HUMUS. Is the best for making new lawns, gardens, etc.

Write for descripive catalogue and prices

#### IMPORTED ORCHIDS

If you contemplate buying imported stock this year write to me.

JOSEPH MANDA, Orchid Expert, Seedsman and Florist
WEST ORANGE, N. J.

#### Chrysan the mums-Carnations-Roses

NOVELTIES FOR 1915

If you did not receive our 1915 price list write us

Elmsford Nurseries-Scott Bros., Elmsford, N. Y.

on a series of the continuous 
HITEOGRAPHICA AND HITEOGRAPHICA CONTRACTOR AND A STREET A

#### ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders—Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N J.

#### HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

#### D. HILL NURSERY CO.

Evergreen Specialists, Largest Growers in America. Box 305 Dundee, Ill.

#### HARRY BALDWIN

Manufacturer of
GREEN-HOUSE SHADING
LATH ROLLER BLINDS

MAMARONECK, N. Y.

# COMPETENT GARDENERS

¶ The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

If Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

**NEW YORK CITY** 

DODSON Feeding Shelters and Bird Houses Save Birds and Win Birds to Live Near You

Put out bird shelters now. Many birds stay north all winter; you can attract them Give shelter, food and water save the birds—by getting the genuine Dodson Shelters and Houses.

Catch Sparrows Now

The Dodson Speriow Trap—no other trap like this—will catch sparrows for you. Now is a good time to remove this enemy of native birds. Price, 86 f. o. b. Chicago.



"Nature Neighbors"

A set of beautiful books about birds, written by authorities, illustrated in color. John Burroughs says — "Astonishingly good."

Free folder showing bird in natural colors. Write for this and for the beautiful book telling how to win birds-both free.

JOSEPH H. DODSON, 732 Security Bldg., Chicago, Ill.

Mr Dodson is a Director of the Illinois Audubon Society

# JOIN THE COUNTRYWIDE CRUSADE AGAINST THE SPARROW NUISANCE

Sparrows are destructive. Eat seeds and grains; drive valuable Links ... It is Deft of Agriculture advises destroying sparrows. Min. st tes ofter a bount;

This is the charlest and best trap. Guaranteed to catch sparrows. Or at today Delivered FREE. Catalog of Bird Houses an., Food Devices tree



parrow Trap \$1.75 del'vd. E. E. Edmanson & Co.

625 S. Norton St., CHICAGO, ILL.

> Knock-Down Bird Houses

Build them yourself. Lots of fun. Instructive. Write for Price List.

#### Hardy Old-Fashioned Flowers

My catalog describes all the best varieties. Until November 30th I am making a special offer to introduce my stock. Write for full particulars and catalog. Do it now while you think of it.

W. E. KING,

Box 340, Little Silver, N. J.

#### THE MODERN GLADIOLUS GROWER

Published monthly in the interests of both amateur and professional flower growers.

50c. per year-3 years for \$1.00

The Gladiolus as a flower has been wonderfully improved and is rapidly becoming the fashion. Important developments are looked for in the immediate future.

Madison Cooper, Publisher, Calcium, N. Y.



SOME time ago we were awarded a contract to build the Greenhouse shown above on the right, which then adjoined two smaller ones. After comparing the results in the three, we were ordered to tear down the old ones and replace them with another of ours—that's the one on the left.

Had the original houses been properly designed and properly constructed they would not have been doomed to the scrap heap.

In the selection of a Greenhouse Builder an Owner must use discrimination or take the consequences.

Under these circumstances, why take chances? We design and build them right in the first place.

#### Put Your Greenhouse Problems Up To Us.

We go anywhere in the U. S. to submit plans and prices

#### METROPOLITAN MATERIAL COMPANY

1396-1412 Metropolitan Avenue

Brooklyn, N. Y.



Nothing adds more to the beauty and attractiveness of your grounds than a good, substantial fence. Permanency is of prime importance, too. Select the fence that defies rust and withstands all weather conditions.

# "FXCELSIOR" RUST PROOF

fences are made of big, strong wires with clamped joints which prevent slipping, sagging or twisting. This exclusive feature assures unusual rigidity under the most severe strain. Excelsior Fences are dipped in molten zinc which makes them practically indestructible. Write for Catalog J from which to select the style best suited to your needs. Ask your hardware dealer for Excelsior "Rust Proof" Trellises, Flower and Tree Guards.

WRIGHT WIRE COMPANY, Worcester, Mass.



## The Dangers in Using Unprepared Humus

NMODIFIED" or "unprepared humus" is nothing but water-logged, sour swamp muck. Its use increases the acidity of the soil, endangering the destruction of the bacteria, so absolutely essential to all soil fertility. No plant foods are added to make it a balanced soil enrichment.

Altho sold from dry samples, it generally comes to you in its original water-logged condition, making an expensive way to buy water.

Contrast it with the sweet, dry, granulated, rich Alphano with its record of wonderful successes.

Our Convincement Book tells the complete story. Send for it.

Alphano Humus Co.

17-G BATTERY PLACE

NEW YORK CITY



# When it comes to Greenhouses Come to

Hitchings & Company

General Offices and Factory-ELIZABETH, N. J.

New York

oston Federal St Philadelphia 40 S. 15th St. Science is teaching that it is as essential to

# PROTECT PLANT LIFE

from insect pests and the various fungi with which it is afflicted as it is to properly fertilize it. The importance of this to successful cultivation is becoming more and more evident as more is learned about the growth and habits of vegetation.



a concentrated liquid spraying material, readily soluble in water, is used at various strengths, according to directions on cans.

Aphine is equally effective in the house and garden; free from disagreeable odors of most insecticides, and practical for professional and amateur growers.

It is effective against green, black and white fly, red spider, thrips, mealy bug, soft scale, rose cabbage and currant slugs, and other soft bodied and sap-sucking insects. It can be applied to the tenderest foliage, flowers, fruits and vegetables.

Aphine will keep your plants (sweet pea vines, rose bushes,

etc., etc.) in the garden free from insects.

Aphine is used by prominent growers as a wash for decorative stock.

Gill, 25c.; half pint, 40c.; pint, 65c.; quart, \$1.00; gallon, \$2.50.

is an oil and sulphur composition—three in one, a scalicide, insecticide, and fungicide combined, composed of a high grade of petroleum, and the properties of the well known fungicide, Fungine. It is a most efficient winter spraying material for San Jose and other scale.

Use one part Scaline to twenty parts water.

As a summer spray for hardy trees, shrubs and plants it is an effective remedy against green, black and white fly, red spider, thrips, woolly aphis, cottony maple scale, tulip scale, mealy bug, and all soft scale. Use one part Scaline to forty to fifty parts water.

The sulphur contained in Scaline makes it an excellent preventive against various fungi at all

seasons of the year.

Scaline will rid your evergreens and shrubs of the red spider pest, which has done so much

havoc to them recently.

For summer spraying, Scaline is recognized as a marked improvement over the old-fashioned kerosene emulsion; more effective and more economical. It mixes readily with water, contains no sediment, and can be applied with the finest spray nozzle.

Quart, 75c.; gallon, \$1.50; 10 gallons, \$10.00.

is a concentrated sulphur composition, used as a spraying material, readily soluble in water, containing no sediment, and, unlike Bordeaux mixture, and lime and sulphur, does

not stain the foliage, but cleanses it.

It is an infallible remedy for mildew, rust and wilt, affecting flowers, fruits and vegetables, and is used with much success by leading growers on young stock as a preventive against various blights; also against bench fungi. One gallon makes 50 gallons spraying material.

Half pint, 30c.; pint, 50c.; quart, 75c.; gallon, \$2.00.

is a soil sterilizer and vermicide. Destroys cut, wire, eel and grub worms, maggots, root lice and ants. Used one part to four hundred parts water, thoroughly soaking the

ground, it will protect your plants and lawns against ravages under the soil.

Gill, 25c.; half pint, 40c.; pints, 65c.; quart, \$1.00; gallon, \$3.00.

These products have the endorsement of leading commercial and private growers, and are generally recognized as standard remedies for the control of the insects and plant diseases for which they are recommended.

For sale by the leading seedsmen throughout the country. If not obtainable in your community, send us your order direct and we will have it shipped to you from our nearest agency.

# nine Manufacturing Co. Agricultural Chemicals

GEO. A. BURNISTON

MADISON, NEW JERSEY

M. C. EBEL



#### Find Out From Us What A Greenhouse Costs

1) to the second street to the pleasures of the so called millionance to Iuxuriate in the Joys of possessing one.

New York,
42d St. Badg.
Chicago.
Rookery Bldg.
Philadelphia.
Franklin Bank Bldg.
Montreal—Transportation Bldg.
Toront.—Royal Burk Bldg. New York, 42d St. Bidg.

Almitted that you could get much of a house for less than

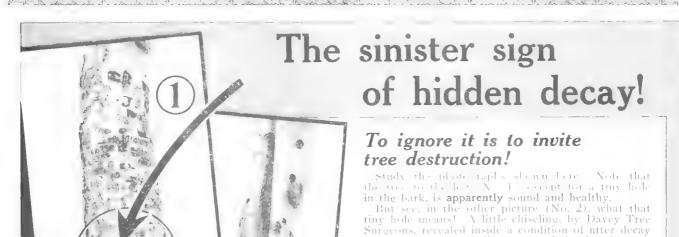
A litetime o pleasure it comparison to the same amount for an auto-which lasts at lest but a tew years? It you can afford one, you certainly can the other. For a satisfying happy

We have a booklet critified "Two G's; or, a Peep Into Greenhouse Delights," that we would like to send you. It will set you right or many of your wrong greenhouse impressions, and open your eyes to many of its adightful possibilities.

Jord & Burnham Co.

Irvington, N. Y. Des Plaines, Ill.

St. Catharines,



severe storm. Are you blind to this and to other danger signs in your trees? Are you, by neglect, inviting their possible ruin? Have your trees examined now-before

-the tree a mere shell, an easy victim for the next

# Davey Tree Surgeons

Leve, the end of preserve and the three spert on without charge. Real tree surgery is Davey Tree Surgery. Officially chosen, after thorough investigation, by U. S. Government, Miss Ida E. Bliss, Great Neck, L. L. K. Y., writes: "I am quite sure my sick trees would thank you, if they could, for the wonderful treatment you have given them, and I expect to see them improve steadily, now that you have gotten them in such safe and good condition." Write today for tree examination and booklet illustrating Davey Tree Surgery.

The Davey Tree Expert Co., 1243 Elm St., Kent, O.

Operation of the Assence TreeSurer random some interest of construction Representatives Everywhere.



Have your trees examined now.

# COLUMBIA



# Double-Disc S-65

BECAUSE the tone of an instrument depends almost as much upon the original recording process in the record-making as on the reproducing mechanism of the instrument itself, Columbia Double-Disc Records, played on any instrument, are indeed a tone revelation to most people.

Once you have played a Columbia Record on your instrument, we believe you will never again be satisfied with a tone any less round and rich and natural.

A talking-machine record is the only article of merchandise in the world that literally "speaks for itself." Hear and Columbia Record and we have told our story.

# COLUMBIA GRAPHOPHONE COMPANY

Box J494, Woolworth Building, New York

# 

VERNEROUS PROPERTY



HILLIATE PE

# y's mums

As usual the fall exhibitions "hammer home" the fact that Totty's Murrs are the leaders in all the types, and if you don't grow Totty's Mums the other fellow is finishing ahead. My Novelties for 1916 are the BEST EVER. They include:

#### YELLOW TURNER

A yellow sport of the justly famous Wm. Turner, the finest Show variety I ever introduced. Yellow Turner is exactly identical in every respect, save color.

#### YELLOW MRS. DRABBLE (WM. RIGBY)

Like Yellow Turner, this is an exact duplicate of its parent in every respect; marvelous in size and finish; a sport of Mrs. Gilbert Drabble.

#### *MORRIS KINNEY*

An incurving stiff stemmed white that is a wonder in A light pink that I exhibited 10 inches deep and  $9\frac{1}{2}$ every way.

#### MRS. J. GIBSON

inches across.

DID YOU SEE OUR NEW SINGLES AT THE SHOWS?

#### NOVELTY ROSES FROM DICKSON

Two "wonders" for forcing:

-11 . #S###U####J###J###

#### CLEVELAND

**GORGEOUS** A pink with bronze and yellow shadings.

A lovely rose-pink, which was named at the Cleveland Flower Show, and which has already won two Silver Medals for the best New Rose.

CHARLES H. TOTTY. Madison. N. J.

HONORS FOR SCHEEPERS'

# Our "Excellenta" Lily of the Valley pips

#### AWARDED-

国の - Parantanan di nong mga ga , ta ga ta w ・ - - ! 1.33 (Lintar a s

FIRST PRIZE, TUXEDO PARK, N. Y.

FIRST PRIZE, PHILADELPHIA, PA.

FIRST PRIZE, STAMFORD, CONN.

FIRST PRIZE, TARRYTOWN, N. Y.

FIRST PRIZE, CLEVELAND, OHIO

Order now for the Holidays.



\$8.00 per case of 250 pips

Every pip produces a perfect flower spike

OUR HIGH QUALITY STOCK WAS AWARDED THE GOLD MEDAL AT THE CLEVELAND FLOWER SHOW SILVER MEDAL AT CHRYSANTHEMUM SHOW, MUSEUM, NEW YORK CITY

JOHN SCHEEPERS & CO., Inc., Flowerbulb Specialists, 2 Stone St., New York City



# Dreer's American Hybrid Amaryllis

This selection of seedlings, we believe, is the best obtainable at the present time. Bulbs secured now will prove useful decorative subjects for the late winter and early spring months.

They have been grown from seed which has been produced by crossing the finest named varieties secured from noted specialists, and the resulting strain embodies with vigorous growth, free flowering habit, enormous size and substance of the individual flowers, a really wonderful range of colors, varying from deep crimson to bright orangescarlet, and from light-rose to almost pure white, many of them beautiful combinations in stripes and variegations.

We offer mixed varieties only, in strong bulbs of flowering size, 75 cts. each, \$7.50 per doz., \$60.00 per 100.

#### HENRY A. DREER

714-716 Chestnut Street, Philadelphia, Pa.

# NEW MUMSFOR THE PRIVATE GROWER

TREAD CONTRIBUTION OF THE TREAD CONTRIBUTION OF THE PROPERTY O

We shall, as usual, include in our list the exhibition varieties of Elmer D. Smith & Co. These novelties will be shipped from Cromwell and our advance orders placed with him insure you early delivery.

Of last season's novelties Calumet and Marigold should be grown by every grower.

We offer you a fine list of new Singles, some of our own and some more good ones from Johnson.

Consult our salesmen or our catalog.

A.N.Pierson inc.

DMWELL GARDENS

# LILY OF THE VALLEY PIPS

For Forcing.

Owing to the war we do not expect to receive any new crop of LILY OF THE VALLEY pips from Germany

We have an extra fine lot of COLD STORAGE PIPS on hand and can offer them now for future delivery.

# Cold Storage Dresden Pips

250 for \$7.00; 500 for \$13.00; 1000 for \$25.00.

Order early before they are all gone.

W. E. MARSHALL & CO. SEEDS-BULBS-PLANTS

166 West 23rd Street. New York  

# The MacNiff Horticultural Company

54 and 56 Vesey Street, New York

The Largest Horticultural Auction Rooms in the World

We are in a position to handle consignments of any size, large or small. Prompt remittances made immediately goods are sold

# BODDINGTON'S BULBS BLOOM

#### Quality the Highest

NOW READY

Gladiolus Nanus Colvillei and Gandavensis varieties, Spiraea, and Cold Storage Lily of the Valley Pips

# Arthur T. Boddington Co., Inc. SEEDSMEN

342 West 14th Street, New York City

# Special Evergreen Offer for Late Season's Planting THE question of an inch or two of frost in the ground need not stop you from planting evergreens. We transplant them practically all winter long. Every tree you plant now puts your work that much ahead next Spring. It benefits the tree, because it becomes thoroughly established, all ready to at once start growing vigorously in the Spring. Order some of our 4 foot White Pines at \$1.75 each—Norway or Douglas Spruces at \$2. Koster's Blue at \$5. Nordmann's Fir, \$7 Every tree guaranteed. Any that fail replaced HICKS IPPS ISAAC Hicks & Son

# REMEMBER

#### IF IT'S A HARDY PERENNIAL

or so-called Old-fashioned Flower worth growing, we have it in one shape and another the year round. We have the largest stock in this country, all Made in America, and our prices will average

#### \$1.00 per Dozen, \$7.50 per 100

Why say more here? Send for our Special Offer and Price List of varieties for Fall planting and benefit from the opportunities this affords you.

Address R. W. Clucas, Mgr. PALISADES NURSERIES, INC. Sparkill, New York



## MEEHANS' 1916 HANDBOOK

contains 112 pages—full of helpful suggestions on hardy plants which grow outdoors.

Collections for various purposes are so arranged that choosing is easy and ordering is simplified. By combining these groups, any property of one acre or less can be planted from street front to small-fruit patch in the rear.

This book is free. Write for it today.

#### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65

Germantown, Philadelphia

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

CONTROL CONTROL DE LA COMPANION DE CONTROL DE LA CONTROL DEL CONTROL DE LA CONTROL DEL CONTROL DE LA CONTROL DE LA CONTROL DE LA CONTROL DE LA CONTROL DEL CONTROL DE LA CONTROL DE LA CONTROL DE LA CONTROL DEL CONTROL DE LA CONTROL DEL CONTROL DEL CONTROL DE LA CONTROL DEL CONTROL DE LA CONTROL DEL 
# KENNEDY & HUNTER SEEDSMEN

SEND FOR BULB CATALOGUE

156 West 34th Street One block from New York

"ONLY THE BEST"

OSSESSENDATORILORIES (COSE O CESTESSE STEADATORILORIUM TORICES STEERING TORICO TORICO CONTROL TORICO TORICO TORICO

# COMPETENT GARDENERS

- ¶ The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.
- I Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

35 and 37 Cortlandt St.

**NEW YORK CITY** 

(Catalogue on Application) LILY OF THE VALLEY (Cold Storage)

Burnett's Selected Dresden Brand. Price per Case of 250, \$7.00; 500, \$13.00; 1,000, \$25.00; 2,000, \$45.00.

#### HARDY LILIES for Outdoor Planting

Date	di Doz.	100
Auratum. (The Golden Lily et Japan),		
White, spotted with crimson,		
Extra Size Bulbs. 9 to 11 mehrs \$0.2	25 82 50	\$15.00
Mammoth Size Bulbs. 11 to 13 inches4	io 3.50	25.00
Speciosum Album. Pure white, fragrant,		
9 11 ms	3.00	20.00
Roseum. White, spotted deep red 9 to		
	20 - 2.00	15.00
	20 2,00	15.00
Magnificum, 9 to 11 mehes Rich red.		
	3 00	20.00
Melpomene, Rich crunson, heavily spotted		
	20 2.00	15 00
Tigrinum (Tiger Lily), Orange salmon, 3		
	0 1.00	7.50
Tigrinum Splendens (Imp. Tiger Lily) Rich		
scarlet, with black spots large bulbs	5 1.50	12.00
Tigrinum Flore Plena New double Tiger		
	5 1.50	10:00

#### SPIRAEA

Tall, graceful, branching, herbaceous percunials, with featherry panicles. Those we list are extensively used for forcing or decorative purposes.

Japonica, Larree white feathery flowers; largely grown for forcing. Each 15c., doz. \$1.50, 100 \$8.50.

Nana Compacta Multiflora. Dwarf and compact with bright green foliage, pure white feathery flowers. Each 15c., doz. \$1.50, 100 \$10.00.

Sl 50, 100 \$10.00.

Sladstone. A large flowering, beautiful pure white variety, showing well above the foliage. A splendid forcer. Each 25c., doz. \$2.50, 100 \$15.00.

Superbe (Abundant Flowering). A grand new variety, from 20 to 30 pure white spikes borne on strong stalks. Each 20c., doz. \$2.00, 100 \$12.00.

Queen Alexandra. A magnificent shell pink variety, in labit similar to the well known Gladstone. Splendid for forcing Each 25c., doz. \$2.50, 109 \$18.00.

Peach Blossom (New). A heautiful pink, fine for forcing Each 30c., doz. \$3.00, 100 \$20.00.

#### BURNETT BROTHERS SEEDSMEN

98 Chambers St. near BROADWAY, New York Telephone 6138 Barclay

#### IMPORTED ORCHIDS

If you contemplate buying imported stock this year write to me.

JOSEPH MANDA, Orchid Expert, Seedsman and Florist WEST ORANGE, N. J. to an annumentation (5) . The strangementation of the strangement of t

#### gununtarik issorininininininin ka sisuuntiininin issa saa hota turania (kaannin istaaniinin)aastaataniininintii Chrysanthemums – Carnations—Roses

**NOVELTIES FOR 1915** 

If you did not receive our 1915 price list write us

Elmsford Nurseries-Scott Bros., Elmsford, N. Y. Sherra a sa neaconnocon de communicación do la completa da communicación de communicación de la necesión de co

#### of de CMBOTE, c. Habilias, dimensilahi lika (AMBOTE), a ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders—Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N J.

a pagenta or equal to equal to the contract of the pagents of the contract of

#### HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

#### D. HILL NURSERY CO.

Evergreen Specialists, rgest Growers in America, Box 305 Dundee, Ill. BECOMMING FOR A CONTROL OF THE TAXABLE AND THE SET OF T

# HARRY BALDWIN

GREEN-HOUSE SHADING LATH ROLLER BLINDS MAMARONECK, N. Y.

# **BOBBINK & ATKINS**

# **Autumn Planting Means Success**

#### Our Home-Grown Roses

In every variety old and new.

#### Shade Trees

You have a wonderful range from which to select in variety and size at our Nurseries. Every tree is well grown, has a straight stera, good fibrous roots and well shaped healthy top

#### Flowering and Berried Shrubs

We have the common and rare kinds for Summer and Winter decoration.

#### Bulbs

For choice flowers plant our high grade bulbs.

**OUR** 

#### New Hybrid Giant-Flowering Marshmallow

This introduction of ours continues to astonish the world with its magnificence in foliage and floral effect.

Our Illustrated General Catalog No. 45

fully describes those and our full collection of all plants. It is mailed on request with our AUTUMN BULB CATALOG

Come and Inspect Our Nurseries

"He Plan and Plant Grounds and Gardens Everywhere"

NURSERYMEN, FLORISTS AND PLANTERS

RUTHERFORD, NEW

# Evergreen Trees

There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

#### Trees, Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs,
Greenhouse Plants and Orchids.



4 3 F 1 1939 DE COLE E ANTONIO PER ESTA MANOREMENTA DE LA SECENCIA DEL LA SECENCIA DE LA SECENCIA DE LA SECENCIA DE LA SECENCIA DE LA SECENCIA DEL LA SECUNDA DEL LA SECUND

### The Contents --- November, 1915

erit enittett	- A-1	Addentities, sasa	
	Page		Page
Things and Thoughts of the Garden		Among the Gardeners	
By The Onlooker	483	American Association of Park Superintendents'	
A Talk on Outdoor Chrysanthemums		Notes	505
By Chas. H. Totty	485	Convention Trip of Park Superintendents	
"'Mums at the Moorings"		(Continued)	506
By Wm. F. Turner	487	The Drift of Modern Recreation	
View of Country Life Permanent Exposition .	487	By Edwin B. De Groot	507
		Our Native Bird Protectorate	
Evolution of the Cultivated Chrysanthemum .		Schenley Park, Pittsburgh, Pa., Show	
Gardens Around Philadelphia		Horticultural Society of Western Pennsylvania	
Schizanthus as a Spring Flowering Plant .	491	Allegheny County Garden Club	
"Bystander" After the "Onlooker"	492	International Garden Club	
Henry A. Dreer Exhibit at Panama-Pacific		American Rose Society	
Exposition	493	Honoring John McLaren	
A Horticulturist's Interesting Visit		Group of Flowering Lilacs	
Moving a Large Chrysanthemum Bush Plant	494	Directory of National Associations	
Possibilities in Landscape Forestry		Directory of Local Societies	
By Arthur Snith	495	Directory of Garden Clubs	
Work for Month of November		Horticultural Events	
By Henry Gibson	497	Panama-Pacific Show	
Growing Darwin Tulips	498	New York Horticultural Society Show .	
New Seedling Chrysanthemum "Tiger" .	498	American Institute, New York, Show	
Electricity and Plant Life		Country Life Exposition, New York, Show .	
By Tyrone Kelly		Boston Fall Show	
The Farms, Monticello, Ill.	500	Local Fall Shows 51	6-519
Editorial	502	Chicago Flower Show	520
President's Thanksgiving Proclamation		Cleveland Flower Show	520
National Association of Gardeners' Notes .	503	Providence, R. I., Flower Show	520

# LILIUMS---SPIREA---LILY OF THE VALLEY

The following bulbs and roots are arriving this month:

#### HARDY LILIUMS

The three best Hardy Lilies for outdoor planting or indoor growing are just arriving. Have you placed your order for your full requirements? It is conceded that the following do best if planted in the fall:

AUKAIUM (Golden Banded Lily	)	SPENOSUM ALBUM		SPENOSUM MAGNIFIC	UM	
	100		)oz 100		Doz	100
8 to 9 inch bulbs \$1.00	\$8.00	8 to 9 inch bulbs 5	2 25 \$15 00	0 8 to 9 inch bulbs	. \$1.00	\$8.00
9 to 11 inch bulbs 2.25			3.50 25.00	0 9 to 11 inch bulbs	. 2.25	15.00
11 to 13 inch bulbs 3.50			4 311 35,111	11 to 13 inch bulbs	. 3.50	25.00
13 to 15 inch bulbs 4.50	35.00			13 to 15 inch bulbs	4.50	35 00

## S. & W. CO.'S RUSSIAN LILY OF THE VALLEY

COLD STORAGE If you are contemplating having Lily of the Valley for the holidays, it is still time to plant. We have them packed

an educa of			
100 S. & W. Co's Famous Russian Valle 250 S. & W. Co's Famous Russian Valle 500 S. & W. Co's Famous Russian Valle	y for 7.00	2,000 S. & W. Co's Famous	Russian Valley for \$25.00 Russian Valley for 48.00

#### SPIREA (For Easter Forcing)

,	RUBENS SPIREA			
This Spires which	was first introduced in this	Doz.	100	
country last year,	has proved to be the finest			
pink Sparea extant	\$0.35	\$3.50	\$28 DH	

PEACH BLOSSOM

This variety is much of the same habit as Gladstone except in color, which is a soft pink ......

QUEEN ALEXANDRA Shrimp pink; a variety very largely grown on account of its even color and dense, compact spikes, 80.25, 82.50, 812.00 GLADSTONE

One of the facest and most extensively grown of the white varieties. Spikes of pure white flowers, borne on stems P (for high; foliage excellent).



30-32 Barclay Street **NEW YORK CITY** 

# GARDENERS' CHRONICLE

#### OF AMERICA

THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

THE NATIONAL ASSOCIATION OF GARDENE Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

NOVEMBER, 1915.

No. 11.

# Things and Thoughts of the Garden

By The Onlooker.

Although it is rather late to be choosing Narcissi for potting up, it is nevertheless not too late. Some of the best are often overlooked, and the names of a few may therefore not come amiss. We all grow the old Emperor and Empress as a matter of course. Victoria, too, is generally to be found in the collections, also Barrii Conspicuus, than which I think there are few more beautiful Narcissi in commerce. If it has a superior in its own line of red-cup and vellow perianth, this is found in Gloria Mundi. Then who could be without the ancient but ever-reliable Sir Watkin?—one of the oldest Daffodils in all the lists. In recent years the golden trumpet, King Alfred, has come into merited prominence. It is a vigorous grower and is one of the most stately varieties that can be had. As a "white" companion, take Madame de Graaff. Later in point of age came Mrs. Geo. Barr and Mrs. Robt. Sydenham, and each are first-class white self Daffodils. In the chastely beautiful Chalice-cupped Narcissi (Leedsii group) are Evangeline and White Lady; and in addition may be chosen Seagull. Lucifer, Firebrand, Lady Margaret Boscawen, Whitewell and Blackwell are of the incomparable section and are bright and always do well. The chief favorites in the poetaz class are Elvira and Jaune à Merveille; while of the true poeticus varieties three good ones are Cassandra, Homer and Horace. As in the case of Orchids, America is ages behind Europe in its Daffodils and Narcissi. Not a note or a chapter but a book could be written upon the merits, interest, loveliness and idiocyncrasies of the hundred and one varieties of choice Narcissi now obtainable, and as some of the European firms might show an inclination to part more readily with some of their gems this year, it is sincerely to be hoped that some of our wealthy amateurs will have added considerably to their previous collections and exhibit them at some of the leading shows, and in that way prove to others what wonderful grace and refinement of beauty there are in this family of bulbs. In concluding this paragraph I feel impelled to ask why is it that so many growers persist in calling the common Daffodil by the name Jonquil? The Jonquil is perfectly distinct, and how the confusion arose is hard to understand. By the way, it has become the rule to speak of all Narcissi as Daffodils, although formerly that term was reserved only for the long trumpet kinds. It is better, too, as it obviates a lot of difficulty and confusion, especially in these days when even the keenest

specialists don't always know just into what class to place their blooms without first measuring the crown or trumpet with a tape or rule!

There are two plants that the present writer cannot understand being neglected: one is the Australian composite—although very unlike a composite—Humea elegans; the other is the so-called Potato-Cherry, better known elsewhere as the Winter Cherry or Chinese Lantern. It is easily raised as an annual from seed and does well in sandy soil in a warm, sunny position. The reddish terra-cotta, inflated, roundish calyx or lantern-like covering around the "cherry" (fruit), makes the plant highly decorative for autumn and winter. It is an admirable subject for Hallowe'en. Humea elegans, which has been mentioned in this column more than once before, is a splendid plant either for the conservatory or for the open air in summer. For effective sub-tropical bedding there are few better things, but it requires shelter; in a windswept place it would not show to advantage. The plants have to be grown on to blooming size before being set out. Why not try it next year?

Among berried shrubs that can be used for indoor decoration are these, including also some of the grasses and such-like: Bayberry or Candleberry, which grows on hill-sides and waste places along the Eastern coast; the berries are small and grayish in color, set in clusters close against the stem. Sprays of Berberis Thunbergii and B. vulgaris, the Common Barberry, are excellent. There is also nothing amiss with the jet black berries of the California Privet. Several of the Elaegnuses are also showy when in fruit, notably Europaeus, Bungeanus, patens, umbellatus and Hamiltonianus. Lycium vulgare, a very common and hardy shrub, is ornamental when berried, as also Lonicera iberica, Rhamnus dahurica, Rhodotypos kerrioides, Viburnum lentago, V. prunifolia, V. Opulus and the fine Snowberry, Symphoricarpus racemorus. Plantings of these for their berry effects is worth considering. In winter they are much to be prized.

Has any one tried the lasting qualities of different varieties of Roses, either of indoor or outdoor kinds? From some notes made by a lady whom I am well acquainted with, she found that Liberty was her best crimson, Mmc. Abel Chatenay and the Lyons Rose her best salmon pinks, Mrs. E. G. Hill, Mrs. Geo.

Shawyer and Lady Ashtown the best keeping pinks; while Pharisaer, which is very similar to Prince de Bulgarie, are the finest flesh-colored two. The latter, however, loses its salmon color too soon—sooner than its purer blush twin brother. The lasting power of Roses, as with other flowers, depends on their being cut at the right time and in slitting their stems or lightly hammering the ends, as we do in the case of Chrysanthemums. Then give them a good drink in deep water in a cool and, if possible, darkened room before arranging them in a vase.

Those who are on the lookout for novelties for the big National Flower Show at Philadelphia next spring, or for any other of the greater or lesser exhibitions, might hunt up the two rambler Roses White Tausendschön and Sylvia, both of which originated with the firm of Wm. Paul and Son, Waltham Cross, England. They are each good, and it ought not to be eight or a dozen years before they reach America (vide notes on this question in last month's Chronicle). two, Sylvia is the more desirable, being sweetly scented and easily forced. By the way, how quickly the little cluster Rose Geo. Elgar, which was shown at New York last spring, has gone ahead. It seems to be in the hands of half the growers in the Middle West already. It goes by the pet name of the "Yellow Sweetheart," and is a fine companion to Cecile Brunner. This name is often spelled Cecil Brunner, but wrongly. Hadley is giving a splendid account of itself, although just on the shy side as regards blooming. Ophelia, too, is everybody's favorite, being so vigorous and so beautiful. It was raised by the Paul above named.

It will soon be time to sow Clarkias for blooming in the spring. Get ready by about the first of January, sow in 4-inch pots in light sandy soil, place in a warm house, say 60 degrees, in a propagating frame with a top to it, and when the seedlings are through, thin them out to two or three at most, and divide the ball of soil, a part to each plant, when they are 4 inches to 5 inches high, and pot off separately. Or they may be carefully sown in seed pans, which is perhaps the better way, and the seedlings be pricked off and potted when of sufficient size. They should be grown cool and slowly after they have germinated and made a good start, as the Clarkia is very nearly, if not quite, as hardy as the Sweet Pea. Trained up into pyramidal form they make elegant and thoroughly delightful subjects for the greenhouse or conservatory. Some nice specimens were seen at the gardens of Mrs. D. Willis James, in charge of Wm. Duckham, last May. See that you get the bright salmon-colored type, as the mauve-colored kinds are not anywhere like so pleasing.

Cleaning and scrubbing the interiors of plant houses, more especially palm houses, is part of the work of the short days of November and December. It is some job, believe me. But cleanliness is, if not next to godliness in this case, certainly necessary for salvation—the salvation of the house and the stock in it. Palms are usually much-used plants, and not only are they improved by a good sponging, but they must at all costs be freed of whatever scale is on them. Only a manual operation will clean badly infested plants. The steady employment of Alphine is also recommended.

Many of us are always on the alert for something novel in the cut flower line. What better could we have than Tricker's winter-flowering Water Lilies? Probably they are not so uncommon after all. I mean winter-flowering Nymphaeas, as such, for there are several species whose natural proclivity it is to bloom when their brethren are at rest, and it seems to have been with these that Mr. Tricker has been working. He is improving the flowering qualities and adding to the color tones and selections of the flowers. He is also specializing in plants for aquaria, a decorative line closely allied to gardening that many of us know all too little about. These winter Nymphaeas require water at a fairly high temperature as one of the essentials of their successful cultivation.

That well-grown vegetables, when properly staged, can be made one of the attractive features of a horticultural exhibition, equally in the interest they furnish, the Roses, Carnations or other cut flowers or groups, has been proved over and over again at the few shows where first-class vegetable exhibits are seen. The ladies, even the grandest, stop to admire and appraise the culinary produce. Art, beauty and utility combine in a collection of kitchen garden materials as they only do in a choice table display of fruit. And why don't the societies offer a prize for this latter? They are missing a good thing.

One of the most interesting books I have hit upon recently is "Old Fashioned Gardening," by Grace Tabor. Some of my friends will no doubt put me down as one fearfully behind the times, since this excellent book was published in January, 1913. Yet I used to consider myself somewhat of an authority on gardening literature, and have given addresses before clubs and societies on this very subject. However, during the past two years there has been a serious hiatus in this particular line of my studies. When one is taken entirely away from old haunts and scenes of richest privileges, to a place entirely new and strange, it takes time to become re-established. Like a soldier whose base of supplies is severed, even if only temporarily, one feels in difficulties. But that matter is righting itself.

It was a great treat some months ago to visit the very excellent collection of books set out by the New York Public Library, and there browse for a while with old and new friends. The thought has many times occurred to me that if we as gardeners are ever to establish our profession on a better basis than it enjoys today, it will only be through an educational development, and no association, however well organized in other respects, will last permanently or wax strong that has not made, or does not make, provision for the mental as well as material uplifting of its members. Even the mechanical and industrial trades have made provision for the education of their members by the founding of schools and colleges, and as artisans are mostly engaged in towns and cities, it is easier for their organizations to supply the needful mental pabulum. Through our many gardening societies and similar institutions, we, however, can assist the younger members by furnishing collections of the best books. Gardeners are scattered in rural places, and the library is the easiest and the best means of providing a course of instruction.

Was it not Carlyle who said that the true university in these days was a collection of good books? Ruskin also says, "None of us need many books . . . but (Continued on page 492.)

# A Talk On Outdoor Chrysanthemums

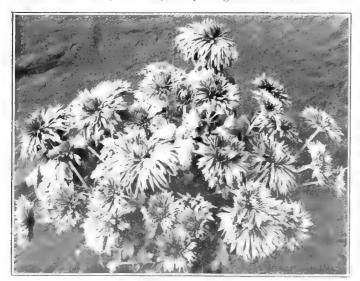
By Chas. H. Totty,\* New Jersey.

To the average lay mind, the term outdoor 'Mums, until a very recent period, simply meant one thing—Hardy Pompons, and while it is true that the Pompons are hardy enough, still the fact that they do not bloom until so late militates considerably against their being of so much value to the cultivator, since the foliage is often badly marked by frost and cold winds before the flowers develop.



NEW LARLY ITOWIRING CHRYSANTHEMUM BEAURIPAIRE

The type of plant we call "Early Flowering," which has been largely developed by August Nonin, of Paris,



TARIA FLOA CACO HESANIHIAUM POMPONOLIA

France, is by far the most satisfactory for growing outdoors, and unless the situation in which they are growing is very low or exposed, they will come through the average winter safely enough. This Early Flowering type on which Mr. Nonin has spent the best years of his life, is a result of a strain of seedlings

from the old ragged hardy 'Mums of our grandmothers' gardens— these latter did not have very much beauty but everyone admired their sturdy independence and the fact that from year to year their blooms braved the heavy rains and not infrequently the early winter snows. The number of varieties today of this Early Flowering type is legion, but a dozen that I would suggest as being the most likely to give satisfaction outdoors would be about as follows:

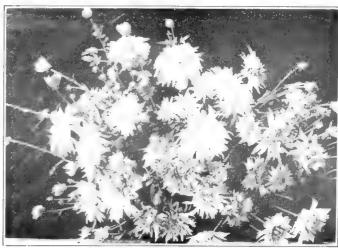
White: Cranford White; Dorothy; Marie Dufour; Wm. F. Collier, and Normandie. The latter variety, Normandie, is often classed as a delicate shade of pink, but as a matter of fact the earlier flowers are almost invariably white. Normandie is the earliest variety



NEW TARIA HOWERING CHRYSANTHEMUM MILKA.

we have and under average conditions the most satisfactory we have of this type.

Yellow: Cranfordia; Carrie, and October Gold. Pink: Beaurepaire; Eden; Le Danube, and Miss Burchfeld.



NIW INRIVITION FRING CHRYSANTHEMUM ODETTE.

<sup>\*</sup>Extracts from le tree given it Country Life Exposition, New York

Red and Bronze shades: Harvest Home; Vesuve; A. Barham, and Billancourt.

There are many more excellent varieties, but I am merely mentioning the very best and earliest for those who may desire to confine their list to a few varieties.

#### HARDY POMPONS.

This is the type of 'Mum that is most largely grown for outdoor flowering, and is valuable if one secures the right varieties. By the "right varieties" I mean those that will flower early enough outdoors to develop perfectly before the weather gets too cold.

The best of all the Pompons is the variety Lillian Doty, a large flowering pink, introduced to the trade in 1912, which will make stems four feet long. The color is delightful whether grown under glass or outdoors, being the clearest bright pink imaginable. The individual flower measures approximately three inches across, and every stem will carry four to eight of these flowers.

A list of twelve of the best varieties of Pompons in assorted colors would be about as follows:

Pink: Lillian Doty; Donald, and Minta.

White: Queen of the Whites; Jas. Boone; Waco, and Myer's Perfection. I might also include in this white section the variety Garza. This variety is really an Anemone-flowered sort but I am assured by one of my customers who has a summer home along the Jersey coast that it is entirely hardy and has bloomed at her place year after year until December 1.

Yellow: Jeanette; Wm. Lahey; Golden Climax, and

Zenobia.

Crimson and Bronze sorts: Julie Lagrevere; Urith;

Tiber; Sulky, etc.

In addition to the above varieties, there are many others very, very beautiful and well known, such as Baby Margaret, a lovely white, and Baby, the tiniest yellow variety known, but I have omitted them in these notes on outdoor Chrysanthemums because they usually flower too late for one to derive much satisfaction from them.

The points on which the Pompons suffer in comparison with the Early Flowering varieties are that the former do not bloom for several weeks after the Early Flowering varieties and are not nearly so large when they do come. There is, of course, a place for both varieties, since one type does not bloom until after the other has gone and the Pompons have one advantage in their cast-iron hardiness. I have seen Pompon blooms come through ten degrees of frost when the same temperature has blackened the open flowers of the Early Flowering type.

#### SINCLE CHR SANIHEMUMS.

It has been thought until very recently that the Single 'Mums would not develop outdoors. This is a great mistake, as some of you have perhaps discovered by this time. A customer of mine, Mr. Francis H. Bergen, of Summit, N. J., is perhaps the most successful man I know of growing Single 'Mums outdoors. He has a border on either side of his front drive leading to the front door of his home, and these borders from the middle of October until late in November are "things of beauty," and the most striking types in the collection are the Single 'Mums.

A list of a dozen of the best single varieties would

be about as follows:

White: Elsa; Gladys Duckham; Mensa, and Snow-flake.

Pink: Ivor Grant; Stanley Ven; Mrs. Buckingham, and Miss Sylvia Sleede.

Yellow: Polly Duncan; Golden Mensa, and Marion Sutherland.

Crimson and Bronze: Ceddie Mason; Brightness and Margaret Walker.

In the single types we have many very beautiful varieties but they need a greenhouse for their proper development, therefore I have omitted them.

Granted that one has the best varieties in their different types in each section, what is the best way to handle them in order to get the best results? Secure them from your dealer in the spring as soon as the weather is warm enough and the soil is in good condition outdoors. Set out the plants in rows eighteen inches apart with twelve inches between the plants in the rows. They should be kept pinched back during the months of May and June in order to keep the stock dwarf and robust and prevent the plants growing too high, necessitating considerable staking.

Because you are not going to get flowers until fall, do not neglect the plants all summer and expect to get them robust when you want them. If the summer is hot and dry, watering should be resorted to once a week and the plants sprayed in the cool of the evening, which will in very hot weather work wonders in keeping down the black and green aphis, which are

the worst enemies of the Chrysanthemum.

Regarding feeding, you, I presume, are familiar with the fact that the tremendous flowers one sees on exhibition from greenhouses, have been fed with artificial fertilizer to bring them to their high state of perfection. Here again the beauty of the outdoor varieties is manifest, in that they do not need this expert treatment as the exhibition varieties do. If the plants when they are set out are planted in good, rich, mellow, average garden soil they will get along very well. If the leaves on the plants are running small and showing signs of not being as large as they might be, a sprinkling of bonemeal applied to the soil and several inches of well decomposed stable fertilizer spaded in during the month of August will help wonerfully in finishing the crop.

As a rule in the early fall months the plants are getting all the moisture they need from the rains and therefore liquid feeding may be dispensed with.

One mistake that amateurs in gardening often make is in assuming that the hardy types do not require any attention from year to year. If one is to grow these varieties to the highest point of perfection, the clumps ought to be taken up in the spring and broken into individual plants. These individual plants when planted in new soil will invariably produce flowers of much finer quality than the old clumps that have been left undisturbed. In this respect the 'Mums do not differ from other perennial plants of a like character, which are benefited by this annual or biennial moving and rejuvenation.

After the plants have flowered the question of protecting them through the winter is of paramount importance. Mr. Bergen, whom I have previously mentioned, says that by his method he has carried his plants over many years and has yet to lose a root. After the plants have finished blooming, he cuts them down to about eight inches from the ground and permits the autumn leaves to blow in and fill up the beds. If enough leaves do not blow in naturally he takes leaves and covers the beds to a depth of six or eight inches and then lays pine branches over the tops of the beds to prevent the leaves blowing away. So treated plants will not suffer from freezing and thawing in February and early March, which is the

cause of so much perennial stock, usually classed as hardy, dying. The plants being kept covered from the sun stay frozen all winter and no harm results. This method would not be so effective in a position where the ground is low and the plants are liable to stand in water. I am convinced that a large percentage of 'Mums die off in the winter because they are affected with "wet feet," but a well-drained piece of ground covered in the manner mentioned will bring through any of the 'Mums above-mentioned in good shape.

Hardy 'Mums, while not as showy as a bed of Delphiniums or other blazing summer beauties, are wonderfully attractive and useful after all other flowers are cut down by frost and will return to the cultivator results in proportion far greater than the labor be-

stowed.

#### "'MUMS AT THE MOORINGS."

"The last rose of summer" has always held a cherished place in the hearts of all, but how tame the dear little rose seems when it is forced into comparison with the Queen of Autumn, especially when placed beside the splendid specimens shown at Col. Converse's place. Growing specimens is a pleasure in itself, but opening wide the doors and inviting the public to enjoy them with you certainly must add greatly to that pleasure.

A general invitation was extended to the public to visit the Converse green houses, Marion, Mass., on October 31, and must have been anticipated by it, judging from the way people came from all around southern Massachusetts and Rhode Island. Automobilists galore, augmented by pedestrians, filled the houses to overflowing and kept the employees busy

trying to prevent a blockade.

A finer display of Mums it was never the pleasure of the writer to behold, mammoth specimen blooms, plants with six flowers to the plant, dainty singles and semi-doubles, pompons and huge specimen bush plants vied with each other to attract the eye and win their just merit of praise.

Among the standard varieties, that mountain of whiteness, Wm. Turner, called forth unstinted praise, while Mrs. J. Purroy Mitchel was a very close second among the whites.

To the writer the finest thing was a magnificent specimen of Meudon, a lovely bright pink variety with foliage peeping out from the base of the flower, and right here it might be well to mention that finer foliage was never seen than Mr. Roy had on his Mums this year,

Geo. Hemming, another very attractive flower, purple amaranth with a silver reflex, while not as large as Meudon, claimed much attention on account of the richness of its colorings, which, to the writer's mind, was finer than that of Earl Kitchener.

Among the yellows James Fraser and Daily Mail were much the finest, the latter, with its fine narrow petals drooping gracefully, would be the writer's

choice.

His Majesty, an intense crimson, formed a striking contrast with surrounding varieties, and Marquis V. Venusta, pink, while only partially developed, gave promise of a grand specimen.

Among the others which were extremely well done were Col. Converse, bronzy crimson; Tarrytown, salmon; D. B. Crane, Calumet, buff; Kewanee, buff; Gilbert Drabble, Thos. Lunt, crimson and orange; Alice Lemon, soft pink, and Walter Jinks, rose pink.

One whole bench was devoted to plants grown in 6-inch pots with six flowers to a plant made a most attractive display. The varieties which proved most useful grown in this manner were Geo. Hemming, Wm. Woodmason, Tarrytown, Meudon, Mar. V. Venusta, Wm. Turner, Lena Filkins, Mrs. Duckham and Rose Pockett.

A yellow sport of Mrs. D. Lyme looked very good and under the master hand at "The Moorings" ought to make a place for itself.

Col. Converse and his superintendent, David F. Roy, certainly ought to be congratulated upon a successful season and a grand "open house" day.

W. F. TUKNER.



AN ASSET IN THE COUNTRY LIFE PERMANENT EXPOSITION NEW YORK, DURING HIS CHRYSANIHLMUM SHOW, THE LERST OF A SERIES OF FLOWER SHOWS TO BE CONDUCTED BY THE INSTITUTION TO ACOUST INTEREST IN COUNTRY HOME LIFE. IN FRONT OF THE BUNGALOW, SEEN IN THE BACKGROUND, A GARGEN OF TOTAY'S FARLY FLOWERING VARIETIES, WAS ARRANGED WITH A MOST NATURAL PLANTING EFFECT BY MAN SCHLING, OF NEW YORK.

#### THE EVOLUTION OF THE CULTIVATED CHRYSANTHEMUM.

The development of the cultivated chrysanthemum furnishes a most remarkable example of the ingenuity and perseverance of the plant hybridist. Although a 16-petalled Chrysanthemum is the emblem of Japan and this flower is called the "flower of Japan," all evidence goes to show that the Chrysanthemum is indigenous to China. Later it was imported to Japan, where it achieved a success far exceeding that in its native country. According to Chinese history, the Chrysanthemum was cultivated in China over 2,000 years ago. Confucius, who supposedly lived 500 B. C., mentions the flower under the name, "Li-Ki," and some Chinese pottery, now preserved in the British Museum, which dates as early as 1426-1436, bears an exact replica of one of the earlier forms of the Chrys-Previous to the importation of the Chrysanthemum into Europe, the Chinese were known to graft certain kinds and cultivate specimens similar to the single-stemmed varieties of the present day. They even adopted a style of nomenclature, which bears little resemblance to our modern system; for instance, one favorite was called "The Drunken Lady," owing to the drooping habit of the flowers during the

The earliest record of the introduction of the Chrysanthemum into Europe dates from 1688, when it was brought into Holland by Brevnius, a merchant of Dantzig, who, in the next year, published his "Prodromus Plantarum Rariorum," which contained accurate descriptions of the varieties then growing in Holland. In spite of its easy cultivation, however, interest in the Chrysanthemum soon died out and the varieties described by Breynius passed out of existence in Holland. England is the next country to which we have any record of the Chrysanthemum being imported, being brought this time in a dried state from China, in 1698-1703, by James Cunningham, Surgeon to the East India Company in Amoy, China. In 1764 living specimens were introduced into England; these were sent from Nimpu (probably Ningpo), China, and were cultivated by Philip Miller. The plants were also grown in the famous Chelsea Garden, in London, and it was from here that herbarium specimens were collected and preserved which are accessible at the present day. The specimens are labeled Chrysanthemum indicum and show flowers with small double heads, undoubtedly being one of the true "indicum" type.

The next important step in Chrysanthemum culture was in 1789 when a French merchant, M. Blancard, brought home three varieties from China: one white, one violet, and one purplish. Within three years there was scarcely a garden in Versailles that had not adopted the Chrysanthemum, the flowers then being about the size of the present-day carnation. M. Blancard's purple variety was introduced into England in 1790. Concerning this introduction, Sabine writes: "This is the purple variety; it had been transmitted to this country from France in 1790, and after its arrival here the changeable white was obtained from it by cultivation. Between the years 1798 and 1808, inclusive, eight new varieties were imported from China into England in the following order: the rose and buff together, in 1798; the golden yellow and the quilled yellow together, in 1802; the sulphur yellow at

the latter end of the same year; the Spanish brown, in 1806; and the quilled white and large lilac together, in 1808. Of these the sulphur yellow was imported for Thomas Evans, Esq., of Stepney, and the remaining seven sorts for Sir Abraham Hume. Later importations have produced two others, the tasseled white, in 1816, and the superb white in 1817."

For a considerable time after their introduction the French and English gardeners had been experimenting with the object of raising Chrysanthemums from seed. Success was finally attained by a French officer, M. Bernet. The previous year he had discovered some withered flower heads in which he was surprised to find seeds bearing all the signs of perfect maturity. Keeping his discovery a secret he carefully tended the seeds himself, and in the fall of 1827 was rewarded with several fine varieties of plants.

In 1843 Mr. Robert Fortune was sent to China by the Royal Horticultural Society of London in search of rare plants. On his return in 1846 he brought, among other curiosities, two small-flowered Chrysanthemums know as the Chusan Daisy and the Chinese Minimum. These, according to James Salter, were probably varieties from the true Chrysanthemum indicum of Linnaeus. The plants, however, did not find favor with the English growers owing to their small flowers, but they were appreciated by the French and were used for hybridizing. According to several authorities, the pompons of the present-day Chrysanthemum originated from these two varieties. The introduction of the Japanese specimens into Europe dates from 1862, when they were brought back by Mr. Fortune from his second trip to China. Salter, in describing these new plants, says: "Some varieties were spotted and striped; others were fantastic forms called Dragons; and one noteworthy specimen was a beautiful fringed white flower, in appearance more like a Japanese pink than a Chrysanthemum.

The development of the Chrysanthemum before its introduction into Europe is a mystery. Hemsley states that "it is impossible to determine the parentage of some of the Chinese double Chrysanthemums, and it is highly probable that some of them are of hybrid origin between Chrysanthemum indicum, the small vellow, and Chrysanthemum morifolium (sinense). The same may be said with regard to some of the early figures of double varieties of Chrysanthemums, which authors have identified with one or the other of the two adopted species. The slender Chusan Daisy, the parent of all the pompons, for example, is probably of mixed origin, though it may be pure C. in-

dicum."

The true Chrysanthemum indicum in its wild state is found from Hongkong to Pekin, the ray- and diskflowers both being yellow. Chrysanthemum morifolium (C. sinense) is found in the Luchu Archipelago and the Chinese central province of Hupeh. It is more robust than C. indicum, the leaves are thicker and tomentose, and the ray-flowers are a different color from the disk-flowers.—From Missouri Botanical Garden

#### PREVIOUS TO ELECTION.

White: Why did you support Black for re-election to Congress? What has he ever done for his constituents to deserve it?

Green: Has he not supplied us with free seeds and does he not promise to fight for free implements if re-elected? What more do you want?

# Gardens Around Philadelphia

A friend who had visited the California Exposition and the convention of the Society of American Florists in San Francisco this summer, and who had been whirled about from place to place with much rapidity over a period of from three to four weeks, said on his return that his mind was full of rather amorphous impressions of the many scenes and places and incidents of the journey.

To some extent that is the condition of my mind after a flying visit, lasting only four and a half days, to two of the best-known gardens in the neighborhood of Philadelphia, to several gardens in the Lenox region of the Berkshire Hills in Massachusetts, embracing a trip up the Hudson River, and lastly to the rock garden and fernery which John Huss has charge of at Hartford, Conn., and to Elizabeth Park there.

The visit to the Philadelphia places was on the rainy Saturday morning of October 4, when Mr. John Wanamaker's estate, Lyndhurst, at Wyncote, was seen, and Mr. Joseph Widener's place in the same neighborhood. Each of these lies a few miles to the eastward of Philadelphia. The Widener estate is the more extensive of the two, embracing several hundred acres, but as Lyndhurst, which John Dodds supervises, was the first to be visited, it is fitting that the notes thereon should be kept in their proper order.

#### LYNDHURSE.

Looking back, the outstanding impressions of this trimly and well-kept demesne are the new Italian garden, not entirely completed yet as it is intended it will be, but very beautiful; the many excellent groups of choice evergreens, some of the trees representing the most perfect specimens of their kind we have seen; and thirdly, the plants under glass.

The glass range is neither considerable nor inconsiderable, and some of it may be demolished to conform to the ground alterations that are in contemplation in connection with the Italian garden developments, but whatever glass was taken away would be restored in a new and up-to-date form.

One of Mr. Dodds' specialties is Dracaenas of the broad-leaved terminalis type, and he is the proud possessor of quite a batch of promising seedlings. It was a treat to observe his wonderful enthusiasm over these plants, a class that receives comparatively too little attention in the way of hybridization from even the trade growers, let alone the professional gardener.

It was here that the bright yellow form of Pandanus Sanderiana originated, a specimen of which won the \$200 first prize for the best new plant of this description at the National Flower Show in New York in 1913. The stock was purchased by Robert Craig Co., Philadelphia, who unfortunately lost their plants, and all that remains of this very fine decorative warmhouse subject are a good-size plant here at Lyndhurst and several off-shoots that have been rooted from it. Mr. Dodds strokes these lovingly, and feels assured that this good thing has not passed out of ken yet.

Another chief specialty in the indoor plant line was an uncommonly fine batch of Cyclamens in 6-inch pots, these having a spread of 12 inches to 14 inches at the time of my visit, and were, one is almost safe to say, the finest batch anywhere to be found along the Atlantic Coast. There was too little time to question Mr. Dodds as to his method of treatment, and that may be left to the editor to inquire of him.

Bush Chrysanthemums in benches and singlestemmed ones were each of the highest quality. Batches of Primula malacoides and the Baby Primrose, Forbesi, gave promise of elegance and brightness in the darker months ahead.

Most of the other popular classes of plants are here grown in fine condition, including Orchids. The magnificent collection of palms in the large house is also deserving of special mention.

It will serve as an index of the mass of soil used in the benches and in potting annually, when we say that a thousand loads are required. The soil, if I remember rightly, is prepared somewhere on the estate by having a liberal quantity of manure plowed in in the fall, this soil then being collected for use when wanted the next year.

Roses, all on their own roots, furnish a regular supply of long-stemmed flowers the season through.

One smaller span-roofed house also is given over to winter Tomatoes, the variety being Lolliard. These are sown at the end of July, and are grown out-of-doors until they are housed at the end of September, when about 2 feet or a little more in height, being very short-jointed and having fruiting trusses quite low down near the pot. These trusses set, and the plants are kept in large pots all winter, only being top-dressed and fed with liquid manure.

Passing to the open air, some evidence of the enormous amount of work that Mr. Dodds had in grading up the slopes on the north side toward the railroad, was brought to notice, but, as he said, days, weeks and months of labor look like nothing in operations of this description. There are dry-stone retaining walls to be built, hundreds, or it may be thousands, of loads of soil to be carted; big trees to be transplanted, and lesser ones brought from a distance and put here; turf to be laid down; roads and walks to be made, and made properly, so that they will be sound, dry, and wear well; and lastly no less an undertaking than the entire removal of a dwelling house, with a stone basement was necessary, this being brought from the main entrance upon rollers, a distance of perhaps 150 to 200 yards. To shift a modern villa like this seems like a tall story, yet it was done without a crack or twist.

Outside the gates are groups of choice Conifers, as well as sinuous masses of them on either side of the fine sweep of driveway. As I will have occasion to refer to similar evergreens in the other notes in this series, the kinds need not be named at present. It was a great pleasure, however, to see so many evergreens so splendidly planted, and one will go far before seeing these Conifers used to so good advantage. Any gardener who has much work of this description to undertake in the near future, and who doubts his own ability to carry it through successfully, would certainly obtain some admirable lessons in the gardens at Lyndhurst. There was no patchwork about the planting, no monotonous grouping and "knotting" of set forms or types, but yet a well-balanced and elegant, varied mingling of kinds of Arborvitae, Junipers, Retinisporas and Pines.

The lawns are extensive and undulating, while there is a nice furnishing of the large deciduous trees throughout the grounds. That great pest of so many gardens, Fall Grass, however, was too conspicuous to be desirable. Much pains are spent in trying to get rid of it, and Mr. Dodds finds his greatest success in keeping it down has resulted since the introduction of heavy motor lawn mowers.

and annuals.

A large circular mounded mass of bedding plants of much richness, placed near the tennis court, arises vividly to mind, containing as it did splendid Crotons in the center, with vellow and red Coleus around this in geometrical lines and masses, interspersed with Geraniums and Achyranthes Brilliantissima. The tennis court, situated handily to the house, was distinct in this, that it was of wood, covered with canvas and painted a leaden-gray color. It appeared rather trying to the eyes, which was the only objection to it that one could observe, and certainly a fast game could be played on this court. It was surrounded by a whitepainted ornamental trellis, with a broad top that gave it the character, at first glance, of a pergola, and this idea was enhanced by the burden of climbing plants upon it. Large Orange trees in terra-cotta vases were set along the edge of the court.

Now we come to an all too brief description of the Italian garden already mentioned, which is purely formal, of course, of rectangular shape, reached by steps from the southern side, having paths and outer border surrounding it, and flagged paths bisecting and crossing it except for a rectangular Water Lily pool in the center. A hedge of Golden Arborvitae has been planted, and a broad border left for hardy flowers

At the side furthest from the dwelling, that is to say, the north side, there is a summer house with pergolas carried out from it on either side. This banks up the view as one advances over the lawns from the house, and was necessary to give balance to the whole

plan. Even this year, the first since the planting was done, a most attractive, pleasing and restful display resulted. Mr. Dodds has the true artist's eye so necessary for success in flower gardening, and used his plants in prodigal splendor—great masses of them, such as Tiger Lilies, Lilium auratum and L. candidum, of which a thousand bulbs alone had been planted; Snapdragons, Dahlias, Galtonia candicans, China Asters, the Scarlet Sage or Salvia, also Salvia Greggii, dwarf Phloxes, Roses, Eupatorium perforata, together with big clumps of hardy Peonies and other dwarfer plants along the front. But more striking than all was perhaps Celosia pyramidalis, which represented a strain saved by the superintendent himself here. The color and development of the plumes were very fine; and a brownish-crimson one called for special notice.

At the corners of the flagged paths and elsewhere. to give balance and dignity, as well as beauty and interest to the garden, were planted shapely Junipers, 5 feet high, the central area, except for paths and the Water Lily pool being of grass. Urns were also set about, and specimen Blue Spruce at the four main A retaining wall in connection with this garden was covered with Rambler Roses.

Other evidences of the developments that were in progress were seen in the huge evergreen trees which had just arrived from the nurseries of Hicks and Son, Westbury, L. I.

There is a considerable amount of semi-woodland, or woodland left somewhat in its natural condition on the place, and here bulbs are naturalized. A collection of choice kinds of Darwin and May-flowering Tulips had also been planted in a sloping piece of lawn directly in front of the south entrance.

Mr. Dodds, unfortunately, at the time of the writer's visit was convalescing after an illness. We trust that he is now thoroughly re-established, and shall look forward to re-visiting Lyndhurst if for nothing more than to see the progress and the up-growth of that Italian garden. He intends to go strongly in for hardy

flowers, and is willing to hear of any subject suitable to his needs in this direction.

#### LYNWOOD HALL.

If the outdoor gardens at the Wanamaker place impressed me most, it was the wonderful diversity and remarkably high keeping and quality of the indoor crops at Mr. Widener's Lynwood Hall, where Wm. Kleinheinz has charge, that furnished the chief satisfaction. Yet here, too, it seemed as though a new place was being made, so extensive are the alterations out of doors. The fine sunken garden remembered by so many visitors of previous times has given place to a French garden, laid out in geometrical Boxwood beds, which are filled with the showier kinds of bedding plants like Coleus. Geraniums, Achyranthes, and so forth.

Another story is being built to the mansion itself, and to conform to the designs of the architecture, the surrounding grounds are being altered. Very large numbers of Rhododendrons, many of them quite large specimens, brought direct from Holland, have been planted, and as the work was most thoroughly done, as would be expected from Mr. Kleinheinz, scarcely one has shown the least sign of being any the worse for its travels.

Unfortunately, an established plantation of fine bushy plants of Azalea amoena that bordered one of the chief driveways, said plants being 2 feet high and as much through in most cases, have been nearly ruined this last summer by the Rhododendron lace wing fly, a minute aphis-like insect that attaches itself closely to the under sides of the leaves and extracts every drop of juice from them, leaving them as brown as parchment. Although sprayings twice a week were tried, the little pest sticks so closely that it seems almost impossible to dislodge him, or overcome him. As a last resort Mr. Kleinheinz talked of lifting the plants, dipping them in a tobacco solution, and replanting

Hardy Bamboos are missed, but a wonderful collection of the Reed family, such as Eulalia zebrina, E. gracillima and others of the type, together with a Giant Reed, Arundo Donax, all planted in colonies and flowering profusely in the heavy soil, former quite a tropical-looking scene in the heart of the grounds, surrounded by a rock garden formation and having nearby a rustic bridge almost completely enveloped in the Kudzu vine. This latter grows anything up to 25 feet in a single summer, although it gets killed back or cut back almost to the ground every winter, but the growth starts again from the crown of the plants in early spring. The foliage always remains a lively green, and this vine does not seem to be in the least subject to any form of insect pest.

In the making of one of the new roadways, long hedges of the golden Thuya, "Geo. Peabody," each plant 4 feet high, have been planted, these also having been imported from Holland. The handsome, not to say remarkable, effect of this perennially "golden" hedge may be imagined, and it is doubtful whether a similar ornamental hedge could be found anywhere in the United States.

Owing to some road grading, a retaining wall had to be built as part of the operations, and here choice was made of tall evergreens in the planting behind, while in order to furnish a quick effect during the summer, Petunias, Verbenas, Heliotropes, Begonia semperflorens and other subjects had been planted. Masses of Coleus Verschaffeldti had also been used most tellingly, the plants having been allowed to grow into large straggling masses and calling for close inspection to identify them in their wonderfully elegant form. These could be seen from some distance away.

In the ground operation near the house, or between the house and the magnificent stables, 8,000 loads of soil had been used, merely to round off part of the lawns, this soil having cost an average of \$1 per load. Altogether there are 60 acres of lawns.

The glass department is in a separate part of the grounds, well away from the house. It is a compact assortment of very fine, spanned-roofed houses, all in tip-top condition. The output of flowers reminds one more of a commercial place than of a private establishment. One thousand Valley Pips are used every week, and from 1,000 to 1,200 longiflorum Lilies are forced.

Already in October Sweet Peas were planted— Zvolanek's strain—these being 4 inches high, in 4-inch pots. A house is devoted entirely to Gardenias, and of course, Chrysanthemums are in great variety, Mr. Kleinheinz being president of the Chrysanthemum Society of America. Three thousand plants are grown as single-stem specimens, and as many as 50 to 75 blooms are cut daily during the flowering season. Bush varieties and others grown as half standards make fine material for cutting from. A few plants are also trained in globular and fan-shaped form for decorative purposes in the house and conservatory. The first cut of Lilian Doty was made on October 6. The Chrysanthemums are not grown in benches, but in 6-inch, 7-inch or 8-inch pots, as it is found that they are better under control that way. The plants are shifted into 4-inch pots about the 20th of May, thereafter into 7-inch to 8-inch pots.

The new Begonia, Mrs. Peterson, was seen here with its beautiful brownish-red metallic leaves. Unfortunately, however, its flowering is not always as free as one could desire, and the color needs improving.

The beautiful feathery Nephrolepis Smithii, one of the plumose or lace type, is made use of most effectively as basket plants, while Teddy Jr. and the new very handsome John Wanamaker are two kinds much employed for pot work. The first-named is the dwarfer

of the two, the latter used for bolder work.

The Rose houses have very deep cement benches and the soil is covered with a manure mulch. The plants were in the pink of condition; nothing finer could be The plants were absolutely spotless, seen anywhere. comprising My Maryland, Prince d'Arenberg, White Killarney, Ophelia, Sunburst and others. A house is devoted to American Beauty, and most of the plants were put out in the benches in new soil on the 20th of June, the old plants beeing thrown out entirely.

A large collection of Cattleyas and other orchids are grown, including Cypripediums, Oncidium vericosum Rogersi (these being in pots suspended from the glass), with Calanthes and other subjects.

Carnations are also a very strong feature, comprising all of the favorite sorts. Gorgeous, a fine crimson-scarlet, was noticeably good. The cuttings are taken in December, so as to give a long growing period, and are potted on into 4-inch pots, then put into the benches in the first week in July, and allowed to flower from early in October onward.

The quantity of bedding plants propagated annually runs to 55,000, all of which represent cuttings that have to be potted, housed, and grown on; certainly entailing a very vast amount of labor each year.

These are only a few desultory notes of a finely appointed place. One will travel far in order to find a better range of houses, and the estate, apart from the lawns and ornamental grounds, is far stretching, one of its special features being the private horseracing track. The electrical plant, the stables and all the other modern features embody the latest improvement and each deserves special reference in themselves were there space. Over all of this Mr. Kleinheinz presides, and it may safely be taken for granted that he is never very idle.

In the next number of the Chroxicle I will relate some of my impressions of the Lenox estates.

THATRASI.

#### SCHIZANTHUS AS A SPRING-FLOWERING PLANT.

The value of Schizanthus as a spring-flowering plant cannot be overestimated, and a good batch of this popular yet dainty and light flower is more appreciated at that season of the year than at any other time. Not only do the plants flower more profusely, but the absence of that scorching sun which is experienced later on in the year allows them to retain their beauty and freshness for a considerable period. A conservatory in which the main subjects are Primulas of sorts, herbaceous Calceolarias and Schizanthus wisetonensis is a sight to remember, writes Chas. Trott in The Garden.

We generally sow the seed the last week in August, and pot off the resultant seedlings as soon as possible in  $2\frac{1}{2}$ -inch pots, placing them in a light position, yet not in the direct rays of the sun. A frame outdoors having a northern aspect is excellent. As soon as growth has become active, pinch out the growing point and repeat it later, but the second time pinch all the laterals as well. This will lay the foundation of a strong, well-branched plant. Before the plants get root-bound in the pots (and this must never be allowed to occur, as the plants may as well be thrown out as allowed to flower), a further move into 5-inch or 6-inch pots must be given. The 5-inch pots are perhaps the best, as it is not wise to over-pot them. They are impatient of careless watering and drought, either extreme proving fatal to one's hopes. Steadily keep to the pinching and repotting, never hastening the plants in any way, and by the middle of October they may be potted into the final or flowering pots. These may be either 8 inches or 9 inches in diameter, according to the grower's discretion or convenience. The soil for this potting is very important, and should not contain too much humus and no artificial manure, unless it is a little bone-meal. Good strong loam should comprise three parts of the mixture, the other part consisting of wood-ashes, lime rubble and leaf-mould. Firmly press the soil around the plants as the work proceeds, and leave quite 3 inches for top-dressing if in a 9-inch pot, and a little less if in an 8-inch pot.

Stake the plants nicely, and if the weather is still open they may be left in the frame. I have known them to experience 5 or 6 degrees of frost and take not the slightest harm. However, it is always the best plan when they have got so far on to take no chances; but never give them more heat than is absolutely necessary to be safe. As soon as they start growing again, they may be topdressed with the same mixture as advised for the final potting. They may then be given a little diluted cowmanure, gradually increasing the strength of it until the flowers look ready for opening, when it is best to cease.

They may then be moved to the conservatory.

#### ANNUAL CONVENTION

National Association of Gardeners Boston, Mass., December 9-10 If interested see page 503

#### THINGS AND THOUGHTS OF THE GARDEN.

(Continued from page 484.)

valuable books should, in a civilized country, be within the reach of everyone." Do not for a moment imagine that reading is intended to take the place of practical training. In gardening it can never do that. The young gardener must be trained in the garden, the potting shed, the greenhouse and in the vegetable and fruit quarters. Gardeners in the Old Countries are so taught. Of all gardeners, perhaps the Scotch are the most completely equipped, although I also think the English and German men are very broadly trained. The young Scotsman is first of all thoroughly grounded in outdoor routine work, from trenching, pruning, planting and levelling of ground, to the fullest control of all the vegetable garden and the outdoor pleasure grounds and flower gardens. Many a man goes right through all this before he goes under glass. All the while, however, he is observing the indoor operations, and on rainy and wintery days he is called in to assist in plant house or grapery, while all the while he must take his turn "at the wheel." He learns stoking. On Sundays he has charge of the watering and ventilating of the glass ranges or part of the range, if the place is a large one. Naturally, the indoor foreman or general foreman supervises, at least if the young man is a raw hand. By and by he is put more fully "on his own." That is the Scotch method of training gardeners, unless it has altered in the last few years, which I doubt.

It might seem a "come-down" for an outside foreman to take a journeyman's place under glass. It is not so regarded. The young man gets charge of a range of fruit houses, or these and some of the plant pits. Under able guidance, and with the splendid elementary training already received, it is a simple, straightforward job to take in hand crop after crop and make a success of it. Orchids, Roses, Carnations and certain warm-house subjects require special attention and they receive it. A man may specialize. Many do, either at this stage or before, but the great aim of the true gardener is to make himself an "allround man. Eventually the post of indoor foreman is attained, just as the outdoor foremanship was, and now begins the search for a headship or superintendent's place. This often necessitates several years of waiting, but it will scarcely be doubted that the man so trained is a finished and trustworthy gardener.

This is away from the subject of books, however, and we may at once ask what course of reading would be best to be pursued in connection with one's practical experience. Perhaps no one outside a school of horticulture ever carried through a steady course of book reading. Most of us dip here and there as we go along. If we have a good reference work we are content. That is because of our utter lack of any system, and the time has come, it seems to me, when the National Gardeners' Association should draw up a course of reading for the guidance of its younger members, whether they care to follow it or don't. I would like to insist on a knowledge of the history of gardening, and the reading of such a work as this of Miss Tabor's would be one of the books to be recommended. Without a knowledge of the successive stages by which gardening has developed to its present stages we cannot call ourselves intelligent craftsmen. Moreover, such knowledge might save us from attempting things that long ago were either verified

or disproved. Following that would come the histories of given plants, the meaning of plant names, some of the uses of plants—I mean from the economic and medicinal point of view. Some of our grand-parents knew a whole lot more about this than we do, and it adds so much to the interest of our work among the plants to have this knowledge. What is called geographical botany, or the study of the distribution of plants over the globe, is also highly entertaining and has a direct practical bearing on the day to day work of the garden. What gives the note of piquancy and delight to the writings of Lord Redesdale, who is elsewhere mentioned in this number of the CHRONICLE. or to those of William Robinson, but the intimacy with which they speak of plants in their native habitats? Of course, these men have travelled and seen for themselves, a privilege all of us cannot have, but we can learn from them and have our imagination quickened. Thirdly; there is the scientific side of the subject, and a big side it is. Entomology, with systematic, morphological and histological botany enters into the reckoning, and believe me, these names are not so terrifying after six months' close reading of the right kind of books. With these subjects entered upon, and some knowledge of agricultural chemistry, the gardener is then well able to take care of himself in any crowd, or in conversation with those who employ him and who have a right to look to him for the highest instruction and advice. Just at this point rises the eternal question of demeanor and the value of tact and other factors of the make-up of the complete (professional) gardener. Equally it raises the discussion of the relationship of the employer to the gardener. Shall we enter the discussion? Not this time!

#### "BYSTANDER" AFTER THE "ONLOOKER."

The very able article by the pen of "The Onlooker" in your last issue was written by one possessing a far larger knowledge of the whole horticultural field than the average onlooker possesses, and one would be led to believe that he is a very keen "onlooker" indeed, as his article covers a very wide field, dealing with some experiments and some proved results.

I would like to answer the question regarding the wintering of annuals. I have noticed that seeds of Celosia plumosa have wintered in the open ground, germinating late in the following spring and making big plants before the fall. This "Onlooker" will agree is quite a tender annual. I believe it is quite common to see annuals come up the following year after having had a season in the ground.

I believe the idea for autumn sowing is that the seeds remain dormant all winter as the germinating power of some seeds is improved after being subjected to frost in the ground; his remarks on sweet peas and fall sowing I fail to understand. Does he suggest that through the frost-bound winter months that with the dry growth of the sweet peas checked, the roots continue to elongate and thus are strengthened for the coming flowering season? This is certainly news, as it is generally admitted that the growth of plants takes place in a higher temperature than germination does. Each seed has its maximum and minimum temperature for germinating. If the sweet pea had any characters of an herbaceous perennial then it would still be hard to understand and as a reader I would be glad to know what he means when he says that "If there is sufficient frost to check top growth, all may

be well; the roots don't stop. . . ." (Page 441, column 1.)

I agree with "Onlooker" that the New York Botanic Garden is, from a horticultural standpoint, disappointing, and I should think from a botanical standpoint equally disappointing.

In his interesting remarks relating to the botanist and his habit of plant name changing, one asks himself whether those remarks or arguments indicate that plant naming is complete and that the first name a plant receives it must stand or fall by it, and that classification stands for nothing, but that a plant's name must be handed down from father to son and no attempts be made to see if it is named correctly, but must stand as the "Law of the Medes and Persians."

This brings us to that interesting note on the "Boston Ivy" or "Ampelopsis Veitchii," one asks where did those names arise. The latter, we know or believe, that the firm of James Veitch & Sons, London, England, named and placed it upon the market somewhere about 1879 and that it was reviewed in "The Gardeners' Chronicle (English)" in 1880. If the botanist classifies this plant and calls it "Vitis inconstans" it indicates that the botanist is attempting to level the irregular work done by the nurserymen when he attaches his own name to a plant never before on the market, with advertising the sole idea. As for the name "Parthenocissus," "Onlooker" would have us believe that this is a new name. I can well remember in my nursery days in Europe that most of the Ampelopsis were known as Parthenocissus and I think most gardeners with any knowledge at all knew that and any one acquainted with horticulture at all knows and acknowledges that most plants have a synonym, and some more than one.

Parthenocissus quinquefolia, "Onlooker" will find is the synonym for l'itis quinquefolia the "Original Creeper" of the American hedgerows known as Ampelopsis hederacea, while Impelopsis l'eitchii is known as Parthenocissus tricuspidata or l'itis inconstans.

I really think that an able pen as the "Onlooker" has could be turned to a more useful work than bringing up this old, old argument relating to the botanist and strike out in the line of attempting to put a stop to and discourage the use and abuse of common names for plants which every enthusiast and catalogue compiler changes at will; also to encourage the use of the botanical names of plants in the press generally.

#### "Bystander."

#### HENRY A. DREER EXHIBIT AT PANAMA.

The exhibit of Henry A. Dreer, Inc., of Philadelphia, Pa., in the Palace of Horticulture, Panama-Pacific International Exposition, San Francisco, covers an area of 745 square feet and comprises a collection of the choicest species and hybrids of tropical water lilies in cultivation, consisting of the following varieties, known as day-blooming tender water tries:

Nymphaea Panbeyana, N. Grossherrog Lrust Ludwis, N. C. W. Ward, N. Pulcherrima, N. Zangibariensis, N. Zangibariensis a urea, and N. Zangibariensis rosea.

The following, known as night-blooming tender water lilies: Nymphaca Bissetti, N. Dentata Magnifica, N. Dentata Superla, N. Devoniensis, N. Frank Telease, N. George Huster, N. Kewensis, N. O'Marana, and N. Rubra rosea.

Among the miscellaneous aquatics found in the collection may be mentioned: Acorus Japonica Variegáta, Aponogeton Distachyon, Cyperus Papyrus, Eichornia Azurea, Eichornia Crassipes Major, Limnocharis Humbolati, and I halia Dealbata.



THE AQUATIC EXHIBIT OF HENRY A. DREER, IN THE PALACE OF HORIFOLD REP. PANAMAPACIFIC INTERNATIONAL EXPOSITION, WHICH WAS AWARDED A GO D MEDAL.

#### HORTICULTURIST'S INTERESTING VISIT

On the invitation of Mrs. F. A. Constable, of Orienta Point, Mamaroneck, N. Y., the Board of Directors of the Horticultural Society of New York visited her estate on November 1, to view its beautiful autumn setting, the place being noted for its artistic landscape arrangements and magnificent trees and shrubs.

At Mamaroneck the party was met at the station by automobiles and conveyed to the estate. On its arrival the members of the party were received by Mrs. Constable and James Stuart, her gardener, who is one of the directors of the Horticultural Society and also treasurer of the National Association of Gardeners. They accompanied the visitors about the place and pointed out the different interesting features, one of which was the lawns, which are as near perfection as it is possible to attain in our climate.

Mr. Stuart is a great believer in the heavy motor mower and says, if properly handled, it improves the lawns wonderfully where common sense is exercised in not going over them when they are too wet or too dry, and avoiding turning the mower on the same stop too frequently, as this will crush the grass in places.

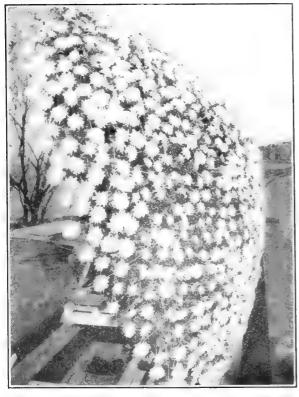
In this favorite section, on the shores of Long Island Sound, the autumn coloring of the trees and shrubbery was magnificent even at this late season. The principal object of the visit, however, was the flower garden, which at this time of the year is a picture such as only nature can paint and is worth coming a distance to see. A garden planted with more than twenty-five hundred hardy Chrysanthemums plants in full flower and harmoniously arranged as to color scheme, is something the average horticulturist does not find opportunity to witness every day.

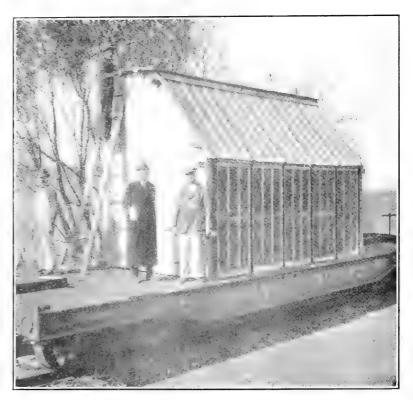
Mrs. Constable takes great personal interest in her flower garden and derives much pleasure therefrom, especially while the Chrysanthemums are in bloom. Her interest does not cease with the flower garden, for Mrs. Constable carefully follows all the efforts of her gardener, Mr. Stuart, which is so essential to the proper development of a well kept place, and if more estate owners and their gardeners came in closer touch with each other many of the gardening problems we hear so much discussed might be eliminated.

After inspecting all that was to be seen of interest about the grounds and in the greenhouse range the party was entertained at luncheon. When its members departed the thought was in the mind of many of them that a little more of this kind of hospitality could be very profitably indulged in among ornamental horticulturists in the vicinity of New York.

The method of culture of the Chrysanthemums grown in Mrs. Constable's garden, as outlined by Mr. Stuart, is rather interesting. The stock plants are kept in a cold frame all winter, not because they are not hardy, but because they would otherwise occupy valuable space in the garden which is required for spring-blooming material. Cuttings are taken at the end of April and potted up when rooted into 2½-inch pots and when ready into 4-inch pots. They are planted in the garden in the early part of August, just after the majority of the perennials are through flowering, and can be trimmed back a little to allow room for the Chrysanthemums. Some of the best varieties that were seen in the garden are A. Barnhard, Border Beauty, Crimson Pride, Etoile d'Or L'Argentuillais, Marie Dufour, Miss F. Collier, Normandy, Perle Chatillonaise, Primevere, Provence and Wells Scarlett.

The illustration on our cover page is the reproduction of a photograph showing a corner of Mrs. Constable's Chrysanthemum garden.





Courtesy of Florist Eachange.

MOVING ONE OF ADOLPH LEWISOHN'S LARGE BUSH PLANTS FROM ARDSLEY, N. Y., TO THE CLEVELAND, OHIO, FLOWER SHOW, UNDER THE SUPERVISION OF JOHN CANNING, SUPERINTENDENT OF THE LEWISOHN ESTATE. JAS. W. CAMPBELL, THE GROWER OF THE PLANT IS SEEN LEANING AGAINST THE "GREENHOUSE ON WHEELS."

# Possibilities in Landscape Forestry

By Arthur Smith, Pennsylvania.

In dealing with forestry problems upon the private estate, both in connection with existing natural woodland, and with reforestation and afforestation, the subject may be approached from two distinct points of view, the aesthetic and the utilitarian; whether the object to be attained is solely to create an artistic landscape, or to secure an adequate return in the future for the capital invested, and the annual

interest and expense incurred.

Unfortunately the average forester never considers a tree from any other standpoint than its present or future value as lumber; he therefore does not make use of the many opportunities which exist of beautifying the ground under his charge. Even with only future profits in view, there is no reason why land scape possibilities should not also be considered, it being quite possible to combine the two; but not, however, in connection with an individual tree. To plant and grow a tree for lumber it should be so placed in relation to others that it will make a straight columner growth, and that its side branches will be pruned away by nature at an early age, so as to produce a straight, clean trunk, free from knots. On the other hand, in seeking to produce a tree with the maximum amount of natural beauty the species is capable of, it must have all the room it requires for the spread of its branches; and while it may, in its early days, be closely surrounded by others for the sake of preserving the ground cover, these must be from time to time removed, so that all its branches may, from the ground upwards, remain, spread and grow unchecked.

A system which has been in vogue among a certain school of foresters in connection with commercial forestry, is to have more or less large, perfectly pure, stands, which are kept clear of underbrush and treated like a field of corn. The only advantages in pure stands from a commercial point of view are, that they are easier and cheaper to establish and that there will

be a reduction in the cost of lumbering.

The principal advantages of mixed stands are, that the natural capabilities of the soil are more fully utilized and a larger number of trees to an acre can be brought to maturity; many species are less subject to damage from various insect and fungous pests in mixture; trees usually develop a better form if mixed properly than when grown pure. From a landscape point of view, mixed stands are of course incomparably superior.

In the comparatively little forest planting that has been done on private estates in this country, some species of conifer have, in most cases, been used. Where the ground is devoid of hardwoods, groups of them should be included in the new plantings; the species chosen being those whose foliage turns to

pleasing hues in the autumn.

The first to change is the Black Gum (Nyssa sylvatica) which puts on a gorgeous, dark red color. This is closely followed by Sweet Gum (Liquidamber styraciffua), the autumn coloring of its five-pointed leaves being not simply a flame but a conflagration; it has brilliant reds and yellows and in addition dark purples, all of which colors are to be seen at one time. It is an ornamental tree not so much used as it deserves, as its foliage all the year, together with its hanging fruit balls, render its characters very dis-

tinctive About the same time come the Dog Woods and the Maples, of the latter, the Red and Sugar are the most brilliant; the Sugar especially in those districts where it turns a brilliant scarlet. When these kinds are in the height of their glory, the oaks are still green; by freely mixing some of the latter, such as the Pin, White, Red and Scarlet species, the effects may be greatly prolonged. In positions close to the point of view, by the margins of drives and trails, the effective bark of the Striped Maple (Acer pennsylvanicum) should not be overlooked, as its bark is copiously streaked with white, producing a very pretty effect, which is the more striking in winter against a background of evergreens. Unfortunately this attractive character becomes reduced as the tree gets old, so one should plant a few young trees now and then.

Where conifers form the bulk of the forest, a year-round brightening effect can be introduced by planting groups of the several forms of White Birch. Their effectiveness is increased by growing them as coppice instead of standards; that is, cutting them down so as to have half-a-dozen or so stems arising from the ground instead of one. Birch also produce the same effect when planted among other hardwoods, as their white bark makes a pleasing contrast with that of those with dark bark. Birch bark does not become white until it is several years old, but the European species, Betula alba, assumes that color sooner than others. For this brightening effect, the Beech is also valuable, as its grey smooth bark is extremely agreeable to the eye when walking through woods at any season.

To obtain a variation in the character of foliage, the Honey Locust and Sweet Gum are very useful; so also are Sassafrass and Mulbery. Then there are the Larches, native, European and Japanese, effective both by reason of their beautiful fresh green when starting into growth in the spring, and the bright yellow of their needles in the autumn. These should be used among hardwoods as well as conifers, but they will not do well under shade.

Another ornamental feature possible in the forest landscape may be secured by the use of trees with prominent flowers, such as Catalpa speciosa, Horse Chestnut, Bird Cherry and Black Locust; the latter however, being in some districts much subject to borers. The most distinctive of all in this respect is the Tulip Tree, especially when branched from the ground so that its large, brilliant, tulip-shaped flowers may be readily seen. For early spring effects the Red Bud, Cereis canadensis, will produce beauteous spots of color.

In more shrubby species, the Sumachs spread their magnificent beauty all through October, to say nothing of the entirely separate character of their foliage at other times. Groups of Witch Hazel add considerably to the many charms of woods in late autumn and early winter, as Whittier wrote:—

Through the grey and sombre wood Against the dusk of fir and pine Last of their floral sisterhood The Hazel's yellow blossoms shine.

Another charming spring subject, which should be in rather large masses to obtain the full effects, is Benzoin or Spice Bush, a relative of Sassafrass. Its bright yellow flowers appear before the leaves, and during late summer and autumn it is covered with red berries. A valuable dwarf red-berried shrub for late autumn and winter effect is Ilex verticillata, Deciduous Holly; it thrives best in rather moist spots. These are just a few of the many delightful native wildlings which, by grouping them in suitable positions, will increase the natural beauties of woodland landscape.

It is not only in newly planted forests that these points should have consideration, but also in old woods, where possibilities in these directions are even much greater. In cases where there is a close stand of old timber, it is impossible to see the woods for the trees, but this condition is rare in districts where one would choose a residential site.

Where any quantity of woodland exists in conjunction with a private pleasure estate, the first thing generally thought of in these days is the cutting of roads through the woods, suitable for automobiles; it is possible, however, to overdo this. Instances may be found where, in a comparatively small area of a hundred acres or so of woods, several miles of wide boulevard have been made. Sometimes these roads may pass through spots where nature has done all that is necessary in the way of supplying landscape possibilities, but when a close, tall stand of trees is cut through, there is nothing but bare trunks to look at. In this latter case infinite possibilities are brought about for ornamental planting by the use of those subjects mentioned above, together with Rhododendrons, Kalmias, native Azaleas, etc., etc., in addition. Making miles of wide drives in a circumscribed area cuts up the woods into small, more or less narrow, blocks; an advantage certainly in getting out lumber; but there is a drawback from the point of view of the bird-lover, as the continual traffic from automobiles scares the more beautiful and rarer birds away. and game birds will not nest under these conditions; further, even with a liberal amount of ornamental planting along the sides of these drives, the aesthetic conditions of the actual forest is not thereby necessarily increased, and, however much there is, little of it can be really seen from an automobile. The true beauties of woodland, whether of large or small area, can only be seen from the inside. We have heard people call woodland commonplace. It is true there are many individuals who can look at the beauties of nature without seeing them, but a walk through any ordinary woodlot will reveal something worth seeing and admiring, if only a little patch of Partridge Berry.

The object of Landscape Forestry is, by the encouragement and increase of beautiful things native to such conditions, to lift woodlands as a whole to a higher plane than is the case when left to themselves or merely thickly planted with pure stands of forest trees. The landscape forester has also to devise means of getting into and going about them as easily as possible. The two best, and in point of fact the only, ways of going about woods and at the same time seeing everything, is either to walk or ride; two methods of locomotion unfortunately almost extinct. For these purposes trails only are necessary, and while some should be wide enough to afford space for the passage of a team and wagon, there is no reason for a lot of cutting and grading. In blazing a trail, some objective should be kept in view; some special point of interest which it is desired to reach. It may be a group of picturesque rocks; a grassy dell which it is intended in the future to further beautify by planting;

some point from whence an outlook may be obtained over a panorama of fine scenery; a grand monarch of the woods in the shape of a specimen tree that has managed to escape repeated lumbering operations. fine trees of great age, with wide spreading branches, are frequently found on old fence lines; from a landscape point of view the more of them there are the better. Where such trees, or others that are likely to reach that condition, exist, any other trees that are now interfering with their natural development or which probably will do in the near future, should be removed; the giving of trees more space must, however, be done gradually or harm may result. As the grand proportions of a well grown tree cannot be seen at their best when standing close to it, approaching trails should be placed and widened out so as to afford a complete view, and, with the gradual removal of surrounding trees, it is possible after a time to have such standing alone in a miniature park.

Other possibilities are: the opening of vistas, through picturesque ravines and glades; or for the purpose of enabling some distant point of interest or scenery to become visible.

A very wide scope in landscape forestry lies in the increase of floral effects not only by the use of shrubs already mentioned but also by means of the thousands of beautiful herbaceous perennials that abound in this country. In all places that have been left to nature these plants are more or less plentiful, the species varying according to situation; sunny or shady; wet or dry; they can be collected from those places outside the range of vision from trails, drives, etc., and massed in suitable positions, thereby creating beauty spots of wild gardening. In addition to flowering plants, the numerous kinds of hardy ferns must not be overlooked, the evergreen species especially add greatly to the charms of strolling through woods durmg the short days of the year. As all native plants possess their individual beauties in varying degrees and manners, the mentioning of any of their names is unnecessary. The writer has treated the subject of native plants somewhat fully in connection with wild and other gardening, in his book on Gardening with Hardy Plants, shortly to be published.

A very interesting and valuable feature may be developed by making one's estate a preserve for native wild plants, many of which are, in some districts, becoming rare, if not extinct; this, not so much because they have been collected and planted in gardens, but because of their destruction by ignorant vandalism.

Where estates are fortunate enough to possess water features, still further possibilities are opened up, especially when these are in the form of a stream fed from springs at higher altitudes. If the water is in the form of pools and swamps, the mosquito problem has to be faced.

It is useless attempting to increase the natural beauties of an estate if these pests mar and prevent the enjoyment of them. When it is possible to maintain a stock of fish in pools, the problem is solved, but in some cases the question of drainage has to be dealt with, so as to do away with stagnant water; needless to say mosquitoes do not breed in running water. Given the fish, a piece of water, in combination with which all the possibilities of aquatic gardening have been made use of, will always be a most charming addition to woodland scenery. Water in woods is also valuable by affording birds a place to drink and bathe, by which an estate is rendered more attractive to them.

(To be continued in December.)

# Work for the Month of December

Conducted by Henry Gibson, New York.

PLOTICITY STIRCES AND TREES.

Every winter sees the loss of trees and shrubs which by the exercise of a little care and forethought might be saved.

Especially is this so with those of an evergreen character. Protecting with leaves and other litter is all very well in so far as it goes, but this we think is not all that should be done. Weather conditions prior to the approach of winter play a not unimportant part in the successful wintering of these subjects. If a prolonged spell of dry weather is experienced previous to the oncoming of severe weather, we are of the opinion that all trees and shrubs should have a thorough good watering, previous to being mulched and otherwise protected for the winter. A very large percentage of trees and shrubs that are winter killed die from the very same cause that many do during the summer, a lack of water at the roots.

Usually neither the heat nor the cold is responsible for it, save perhaps insomuch as they effect the moisture in the soil. There is, as is well known to anyone who is familiar with even the most elementary rudiments of plant physiology, far more transpiration from foliage on clear sunny days, than there is during cloudy weather. It is apparent therefore that when a dry spell has preceded hard freezing weather there is likely to be very little moisture in the soil, whereby the roots can supply the demands made upon the leaves for moisture. To help them do this shading with leaves and other litter has to be resorted to, thus checking the loss of moisture through the leaves, and consequently the demands upon the roots.

The plants are protected from drying winds for the same reason. If rains and snows have saturated the ground with moisture and frost has not penetrated very far in, neither shelter from drying winds nor high sun would be necessary, for the roots would be able to meet all demands made upon them.

One has only to turn to many of our street trees in the summer for an example of the effect that heat, light and drying winds have upon them. Often the foliage on the south side will be scorched while the rest of the tree will be in good condition.

The reason is that the roots have been unable to make good the demands for moisture caused by the more intense heat and light on that side of the tree.

The Yews and other evergreens afford us another good example, this time in winter. Who of us has not noticed dead foliage on the southern side of these evergreens, especially just above the snow line where the intense light demanded more moisture than the roots could supply.

Forest trees are now dormant and any necessary pruning and trimming should be attended to. It is to be feared that on a great many places these trees are left to take care of themselves, with the result that they develop into a shapeless mass of branches. In a perfectly balanced tree all the branches are growing from the center outwards, and at no point do they cross each other. A tree with one main trunk is usually more symmetrical than one that is forked, though the latter will cover a wider area. It is the forked tree that produces the ingrowing branches and these should be cut out to give free access to light

and air. Dead limbs should also be cut out. In cutting off branches the cut should always be made as near the main stem or branch as possible so that in time the wound will heal over. Sawing an inch or two on the under side of the branch will prevent tearing off the bark when the limb falls.

Some very profitable work may be done in winter when other outdoor operations are more or less at a standstill by going over these forest trees with a small hatchet and cutting away dead bark and decaying wood. Cavities may be cleaned out to live tissue and then coal tarred over to prevent fungus diseases from getting a hold of them.

We believe that cleaning out a cavity and tarring it over is preferable to filling with cement. The wounds made by cutting off branches should be tarred over as the work of cutting proceeds, this saving the time and trouble of erecting the ladder and going over them a second time.

#### HARDY SHRUBS.

Deciduous shrubs may still be planted so long as the ground is in condition to receive them. When rain or snow has made the ground wet and heavy it is better to defer this work until spring.

Ground intended for this class of shrubs should be trenched as deep as the soil will allow. Poor soil should be enriched by a generous supply of rotten manure, leafsoil and fibrous loam. In the case of hollies it is advisable to give each one a root bed of three parts fibrous loam to one part rotten manure, The hole for each shrub should be made large enough to allow all the roots to rest in a natural position. Tread the soil firmly about the roots, adding a few spadefuls at a time. Tall growing shrubs should have a stout stake provided to prevent swaying by the wind. Be careful to secure the shrub in such a manner as to prevent damaging the bark. A piece of hose through which the wire is passed will accomplish this.

Established shrubs should have all dead wood cut out during the winter.

#### THE FRUIT GARDEN.

Strawberries, Raspberries, Currents and other small fruits should be mulched well with rotten manure or salt hay before severe weather sets in. When the ground is frozen over an inch or so in depth is the time to do this work.

The strawberries should have all the runners cut away and if the ground is at all baked it would be well to scratch it over a little, but on no account must the roots be disturbed. Raspberries respond to liberal treatment and when mulching put on plenty of manure, and dig it in next spring.

Small trees of apples, pears, peaches, etc., should have the soil pulled up to the base of the plants and when the ground freezes a good mulch of manure should be put on. This treatment may also be extended to the older trees that are bearing with considerable benefit. The old saying "let well enough alone" is apt to prove misleading at times and particularly so when applied to fruit trees. Quite frequently we see trees that are bearing freely almost ruined because they are allowed to exhaust themselves by carrying heavy crops without receiving any compensating supply of manure at the roots. The first sign of deterioration is in the reduced size of the fruit also in growth. A mulch of rich barnyard manure applied even once in two years will greatly assist the trees to maintain their vigor.

Wood ashes are an excellent fertilizer for fruit trees, as are lime and chemical manures containing potash which is an essential plant food for trees of this description. Before applying a mulch the top six inches of soil should be removed and replaced by a mixture of rich loam, wood ashes and lime rubble.

Except on wet soils the manure may be put on now, and a little soil placed over it to prevent birds scratching it around. On wet lands we would prefer to do the mulching in spring, giving instead a dressing of superphosphate of lime and Kanit at the rate of two to four pounds to each tree, according to its size.

All kinds of fruit trees will benefit by this mulching treatment, even those grown in orchards that are sown down with grass. Rain and snow will wash down the food elements and both tree and grass will benefit by it.

#### GREENHOUSES.

Allamandas, Bougainvilleas, Clerodendron, Balfouri and similar deciduous stove climbers require a season of rest. Pruning is also necessary to keep the plants within bounds. If not already done, water should be withheld for a few weeks, then the current year's growth should be cut back to within a few inches of its base. Climbers that are planted out are difficult to dry off, as the roots wander away and usually find sufficient moisture to keep the foliage green for some time later than plants whose roots are under control. The usual custom is to defer pruning until the foliage drops, but with planted-out specimens it is quite safe to prune when the foliage turns yellow. Little or no water should be given until new growth commences in spring. In the case of Bougainvilleas the growth is often so dense that considerable thinning of the main shoots becomes necessary. They cannot flower satisfactorily if they are overcrowded.

#### FOLIAGE PLANTS.

Pandanus Veitchii, Crotons, Dracaenas and other decorative foliage plants always look better after being sponged with soap and water or some good insecticide.

During inclement weather when outdoor operations are suspended opportunity should be taken to go over the plants and thoroughly clean the leaves and at the same time the outsides of the pots. The warm moist atmosphere of the stove causes the pots to become green and when they are in this condition they not only look badly but the plants suffer, because the pots are not porous.

#### GROWING DARWIN TULIPS.

It is very hard for one who has never grown Darwin Tulips to realize the almost unlimited possibilities of the varied uses to which they readily adapt themselves. Their tall, stiff stems raise the beautiful flowers fully twenty to twenty-four inches and withstand the wind so successfully that they may be used for bedding out in the most exposed situation. In fact, they are better adapted for bedding than the earlier sorts as they bloom at a time when the heavy rain and wind storms are past. How many times have the early varieties flowered out only to be beaten down and destroyed by the cold driving rains of early spring? Then, too, the Darwins bloom at a time, in

this latitude, when all flowers are scarce and valuable—Decoration Day.

Some of the brighter sorts make a most beautiful subject for planting amongst shrubbery or the evergreen borders. They are so tall they may be used pretty well back from the edge and so make all the more show, while the earlier sorts being dwarf, can only be planted along the front and edges.

For all bedding I have always advised the use of named varieties rather than the mixtures because by this means only can a striking mass effect be obtained. And at the same time if one does not wish solid colors in one bed it is easy enough to take several varieties whose colors blend and whose style of growth are known and fill the bed so as to get a harmonious color and shape to the finished product.

Last year I went to the trouble and expense of getting one hundred and fifty different varieties of Darwins to plant out so that I could compare the actual relative growth and color of the entire lot. The results more than repaid me, as in no other way could I so familiarize myself with the characteristics of so many sorts. And out of the entire lot there was not one but what was beautiful and would be very valuable in some particular bit of work.—Raymond W. Swett in Modern Gladiolus Grower.



THE NEW CHRYSANTHEMUM "TIGER."

In connection with its campaign of publicity, the management of the Cleveland Flower Show forwarded a number of blooms of a new seedling, Chrysanthemum to President Wilson, at the White House, with a request that he supply a name for it. The President named this new flower, which is a yellow seedling of E. D. Smith & Company, from Chrysolara, "Tiger." Curiosity was immediately aroused as to what relation there may be between a yellow Chrysanthemum and a tiger. Undoubtedly Mr. Wilson had Princeton, the college over which he was president before he entered public life, in mind, when he made his selection of the name, for the tiger is the mascot of that college.

# Electricity and Plant Life

By John Tyrone Kelly, New York.

Developing the well-known economical principle that the stability of a nation is largely dependent on the ability of its soil to support its population, there seems to be an almost imperative duty that our agricultrists principally follow up the successes of certain experiments in the electric stimulation of plant growth. Authorities agree that intensive cultivation is one of the most fruitful methods of increasing the one agricultural output of the soil.

While results to date are quite convincing, the field of Electro Culture, both in Europe and the United States has not yet definitely prescribed what application of electric energy is best suited for the separate seeds of grains, fruits, vegetables and flowers. As a general proposition, however, whether electricity is applied by electric light or directly to the soil, aston-

ishing stimulation in plant life has been shown.

In the United States Dr. Herbert G. Dorsey on the Moraine Farm in the fertile valley of the Miami River, near Dayton, and W. D. Peaslee, in the West, have proved that various applications of electricity have accelerated plant growth. Besides the numerous experimenters in Germany, Professor Lemstrom of Helsingfors University, Finland, has shown that crops are stimulated by a discharge of electricity through the air to the soil, which method is founded on theory and most promising in practice. As a result of his experiences, Professor Lemstrom concludes that the minimum increase yield for all crops under the proper electrified conditions should be about 45 per cent.; for certain crops it may rise as high as 100 per cent. The effects of electricity are not apparent alone in quantity but an improvement of quality and a shortening of the period of growth, sometimes by 50 per cent., is general.

Experiments by Mr. Peaslee were undertaken to establish the result of a current passing through soil containing seeds or roots of plants. These were based on the theory that any results that might be obtained would be due to an enrichment of the soil in nitrogeneous compounds necessary to plant life by the chemical action of the current. Seeds were planted in boxes containing earth from the same mixer and were kept under identical conditions as to temperature, water applied, etc., except that some were subjected to the influence of direct electric currents through the soil while others, used for comparison, were allowed to grow in the usual way. These tests were carried on in a greenhouse and were continued until the nonelectrified plants were ready for transplanting. It was noted that the electrified plants, after transplanting, were hardier and grew faster than the non-electrified. In the radish bed, for instance, where the test was continued until the electrified plants were of marketable size, twelve average sized plants were compared with the twelve largest taken from the non-electrified bed. None of the non-electrified plants were of marketable size, while the electrified plants were. One was one and a half inches in diameter and of fine flavor. Tops were cut and the two beds weighed, the results being as follows:-

Electrified..... 6.75 ounces Non-electrified..... 3.1 " The roots were then washed and weighed, with this esult:

Electrified, average for 25 plants... .468 ounces each Non-electrified, average for 23 plants .098 ounces each This was a gain of 403 per cent. in the average size

of the edible portion of the plant.

On the Moraine Farm, Dr. Dorsey applied to small green house beds for an hour, night and morning daily, an alternating current of 200,000 cycles frequency, at 10,000 volts from a Tesla machine and transformer, consuming about 130 watts. He used a net work of .01-wire at a height of fifteen inches about the bed. He found by weighing various plants a market gain amounting to 75 per cent, for lettuce. The experiment showed that this method gave better results than illumination or earth currents. Almost all the irradiated plants, including radishes, lettuce, beets, cabbages, cucumbers, turnips, melons, tomatoes and parsnips, gave a better growth than those not electrically treated. Beans and peas were only affected slightly, but on the other plants maturity was reached at least two weeks earlier than those not on the electrified ground. Tobacco shows a 20 per cent. gain.

Miss E. C. Dudgeon, of Lincluden House, Dumfries, England, reports experimental work in accelerating plant growth by mercury vapor lamps. Under the influence of the lamp germinating several days and in some cases several weeks, before those sown and grown under precisely similar conditions but not under electric influence. The following table shows the pe-

riod of germination:

	Eb	ectric Lamp.	Gain Electrified.
		Days.	Days.
French beaus		13	21
Carrots		11	26
Cauliflower		6	26
Maize		8	57
Lettuce		6	12
Peas		6	16
Oats			12
Barley		7	12
Wheat			16

Miss Dudgeon stated that all plants responded satisfactorily to the light treatment. Besides the seeds, selections of geraniums, roses, carnations and heliotrope were placed in an electrically lighted experimental house and all showed a marked increase in variety of flowers and good size, color and shape. The rose tree "Belle Lyon-' which had flowers of a previous summer and autumn was pruned in November as bare as a vine. In two weeks it showed leaf, in six weeks buds, and it continued to bloom for months following. Strawberries flowered abundantly and the fruit ripened early. It was proved that there was an increase in the crop of 25 per cent. The lamps were put on about an hour before sunset and kept on for about four and a half hours. The plants were placed on a shelf about four feet from the lamps. The radiation extended over the whole bed. The best results, Miss Dudgeon reports, were those obtained within an eight feet radius of the lamp. As the radiation became less, the growth was less, as could very easily be seen by a casual glance over the beds.

The amount of evidence of the numerous experiments indicates that under the mildly advantageous (Continued on page 511.)

Gain, electrified.... 3.65 ounces, or 111%



ROBERT ALLER, CA'S RESIDENCE, SHOWING THE LAKE SHIP CARMS SMONTHEILES, III

# The Farms, Monticello, Ill.

To take hold of prairie and forest lands and to convert them into beauty spots in a few years is no small task, but this is what was accomplished in a comparatively short period of time on the country estate of Robert Allerton, at Monticello, Ill. "The Farms," as the estate is known, is located on the Sangamon River and comprises about twelve thousand acres of some of the finest farming land in America, situated, as it is, right in the heart of the corn belt.

Evergreens have been liberally employed in the beautifying of "The Farms" and some excellent specimens are to be found, considering the few years the place has been under development.

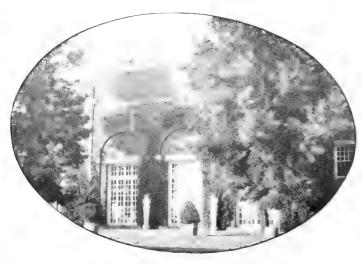
The walled gardens are one of the features of the essate. The fruit garden is surrounded by an eight-foot wall on which are grown trained fruit trees, such as Pears, Apples, Peaches, etc. The vegetable and small

fruit gardens are likewise enclosed in cement walls. Each year "something new" is undertaken in the way

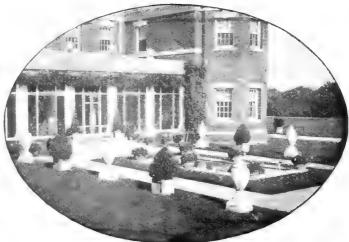
of improvement on the estate so that interest in its development never ceases. At the present time a large Sunken Garden is under course of construction and next spring a large Chinese Pagoda, forty-two feet in height, will be added to the Chinese Mase Garden, which was completed last spring.

Extending along the Sangamon River are more than two thousand acres of natural woodland and last year a system of paths were begun through the woods, of which about four miles are now completed.

Mr. Allerton takes a great personal interest in his beautiful estate. His superintendent, James C. Shield, who has supervised its development for the past eight years, is well known in the gardening profession as an able horticulturist.



EXTERIOR OF MUSIC ROOM, A PART OF THE ALLERTON RESIDENCE.



OUTDOOR SWIMMING POOL ADJOINING THE HOME AND FACING THE LAKE.



CHINESE MAIZE GARDEN T . Int Marchi CORNER OF VEGETABLE GARDEN SHOWING THE TRAINED FRUITS.

CORNER OF HEDGES, IRISH JUNIPERS, BIOTA AND OSAGE.

TERRACT BORDER APPROACH FROM RESIDENCE TO TAKE, WITH BOXWOOD PLANTING VEGETABLE GAPTEN. HOWING GREENHOUSE RANGE OVER-TOOKING THE WALL.

ARBOR VITAE PYRAMADIS PLANTED ALONG WALK

THE

### GARDENERS' CHRONICLE

OF AMERICA.

Published by

#### THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Foreign, \$2.00

Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

Published on the 10th of each month. Advertising forms close on the 1st preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editorial matter should be addressed to M. C. Ebel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### ASSOCIATION OF GARDENERS NATIONAL

President. W. EVERITT, Glen Cove, N. Y.

Vice-President W. S. RENNIE, Ross, Cal.

Treasurer JAMES STUART, Mamaroneck, N. Y.

Secretary, MARTIN C. EBEL, Madison, N. J.

#### TRUSTEES FOR 1914.

Peter Duff, Orange, N. J.; William Kleinheinz, Oguntz, Pa.; Wm. Turner, Meudham, N. J.; Geo. W. Hess, Washington, D. C.; John H. Dodds. Wyncote, Pa.

#### DIRECTORS.

DIRECTORS.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Conn.; Jas. MacMachan, Tuxedo Park, N. Y.; A. Bauer, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnsen, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President, EMIL T. MISCHE, Portland, Ore. J. W. THOMPSON,

Seattle, Wash.

JOHN F. WALSH,

New York, N. Y.

Vice-Presidents. ALEX. STUART, Ottawa, Ont. E. P. GRIFFIN, East St. Louis, Ill.

Scenetary-Treasuren, ROLAND W. COTTERILL, Seattle, Wash.

L. P. JENSEN, St. Louis, Mo EUG. V. GOEBEL, Grand Rapids, Mich.

Vol. XIX.

NOVEMBER, 1915.

No. 11.

#### PRESIDENT'S THANKSGIVING PROCLAMATION.

"It has long been the honored custom of our people to turn, in the fruitful autumn of the year, in praise and thanksgiving to Almighty God for His many blessings and mercies to us as a nation. The year that is now drawing to a close since we last observed our day of national thanksgiving has been, while a vear of discipline because of the mighty forces of war and of changes which have disturbed the world, also a year of special blessing for us.

"Another year of peace has been vouchsafed us; another year in which not only to take thought of our duty to ourselves and to mankind but also to adjust ourselves to the many responsibilities thrust upon us by a war which has involved the whole of Europe. We have been able to assert our rights and the rights of mankind without breach of friendship with the great nations with whom we have had to deal; and while we have asserted rights we have been able also to perform duties and exercise privileges of succor and helpfulness which should serve to demonstrate our desire to make the offices of friendship the means of truly disinterested and unselfish service.

"Our ability to serve all who could avail themselves of our services in the midst of crises has been increased, by a gracious Providence, by more and more abundant crops; our ample financial resources have enabled us to steady the markets of the world and facilitate necessary movements of commerce which the war might have otherwise rendered impossible, and our people have come more and more to a sober realization of the part they have been called upon to play in a time when all the world is shaken by unparalleled distresses and disasters.

"The extraordinary circumstances of such a time have done much to quicken our national consciousness and deepen and confirm our confidence in the principles of peace and freedom by which we have always sought to be guided. Out of darkness and perplexity have come firmer counsels of politics and clearer perception of the essential welfare of the nation. We have prospered while other peoples were at war, but our prosperity has been vouchsafed us, we believe, only that we might the better perform the functions which war rendered it impossible for them to perform.

"Now, therefore, I. Woodrow Wilson, President of the United States of America, do hereby designate Thursday, the twenty-fifth of November next, as a day of thanksgiving and prayer, and invite the people throughout the land to cease from their wonted occupations and in their several homes and places of worship

render thanks to Almighty God.

"In witness whereof I have hereunto set my hand and caused the seal of the United States to be affixed.

"Done at the city of Washington this twentieth day of October, in the year of our Lord one thousand nine hundred and fifteen and of the independence of the United States of America the one hundred and fortieth. "Woodkow Wilson, [Signed]

"By the President.

"Robert Lansing, Secretary of State."

#### SUCCESS OF THE FLOWER SHOWS.

Such glowing reports of the fall flower shows, as appear elsewhere in these columns, assuredly substantiate the contentions made in the past, that the public interest can be aroused in flower shows if proper exploitation is given to them.

What other amusement or attraction is there that will draw twenty thousand persons to its doors an hour for four consecutive hours as was the case at American Museum of Natural History in New York, during the show of the Horticultural Society of New York, or entirely blocking the traffic of a city's prominent thoroughfare, as was the case in Euclid avenue, Cleveland, during one of the day's of Cleveland's flower show. Boston, Chicago and San Francisco all report large attendances, while the "local" shows, those of the small communities all appear to have been more successful than ever this season, both in number and quality of exhibits and in attendance.

The support that the fall shows have received from exhibitors and trade, gives promise that the big spring shows arranged for Philadelphia, New York and Boston will be well patronized by all, directly and indirectly, interested in horticulture.

#### NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

M. C. EBEL, Secretary, Madison, N. J.

#### 1915 CONVENTION, BOSTON, DECEMBER 9-10.

The annual convention of the National Association of Gardeners will occur in Boston, Mass., on Thursday and Friday, December 9 and 10.

While the program has not yet been completed in all its details, it is proposed to hold a business session in Horticultural Hall, on Thursday afternoon at two o'clock, adjourning at six o'clock for dinner and reconvening at eight o'clock for the evening session.

Following the disposal of the routine business of the convention and the election of the officers, several interesting papers will be presented by prominent members of the gardening profession. Ample opportunity will be given for a general discussion of each one of them. The subjects of the several papers to be presented are:-

"Îs Gardening a Profession."

"The Gardener's Place in Public Service."

"The Management of Private Country Estates, as Piewed by a College Graduate.

"The Young Gardener's Opportunity in This Country." "Is Co-operation Between Garden Clubs and Garden-

crs' Societies Desirable?

Friday morning and Friday afternoon will be given up to visiting some of the interesting horticultural centers about Boston.

As soon as the convention plans are completed, hotel headquarters selected and program arranged, a notice with complete details will be mailed to each

It is sincerely urged that members in a position to do so make every effort to attend the Boston meeting. All gardeners are invited to attend the convention that they may become familiar with the work that the association is endeavoring to further.

President Everitt has appointed the following local convention committee, W. N. Craig, Duncan Finlayson

and Wm. J. Kennedy.

At the meeting of the Executive Board held in New York City in July it was voted to present the following resolutions as an amendment to the By-Laws at the convention in December for action by the members:

Amendment to By-Laws, Article III, Section I to read, -The annual dues to active and associate members shall be Two Dollars a near, due and payable on January 1st of each year. Members in arrears of dues for more than one year shall be suspended and cannot be re-instated to good standing in the association until their indebtedness to it is paid.

The National Co-operative Committee has received favorable responses from the following societies, to its communication sent out submitting the resolution of the Nassau County Horticultural Society to permit the transfer of a member in good standing from one horticultural society to another

North Westchester Horticultural and Agricultural Society, "Endorsed in its entirety by a unanimous vote of all present.

The Cincinnati Florists' Society "Adopted the resolutions that were adopted by the Nassau County (New York) Horticultural Society.

Connecticut Horticultural Society, "Perfectly willing to carry out the resolution as adopted, and trusts all the societies will heartily support it.

Tuxedo, N. Y., Horticultural Society, "Is in full accord with the movement and willing to render any assistance that is within

its power to help carry it out."

Morris County, N. J., Gardeners' & Florists' Society, "Meets with the unanimous approval of this society, which considers it an up-to-date idea and a great help to the gardener.

Newport, R. I. Hortica fural Society, "Is hearfily in favor of a transfer of members on the presentation of a paid-up receipt for dues to the end of the fiscal year and would adopt such a policy on its being adopted universally by other societies."
Southampton, N. Y., Horticultural Society, "Is heartily in ac-

cord with the resolution and is always ready to co-operate with horticultural societies in any move which is considered an advantage to gardeners."

New Jersey Floricultural Society, Orange, N. J., "Regards it a fine thing for the different societies to affiliate as suggested, and if all societies will get together is quite willing to adopt the idea."

The Los Angeles, Cal., County Horticultural Society, "Adopted the resolution as submitted. Is always alert and ready to further help those interested in horticulture and especially members traveling from one section to another.

Florists' and Gardeners' Club of Rhode Island, "We are willing

New Bedford, Mass., Horticultural Society, "The resolution as proposed was unanimously adopted.

Rhode Island Horticultural Society, "Heartily endorses the resolution and will be glad to put it into effect without reservation. Gardeners' & Florists' Club of Boston, Mass., "Adopted by the meeting unanimously, to the effect that it welcomes all members

of other societies to its meetings and gives them every privilege except that of voting until they have paid dues in the club."

Westchester & Fairfield Horticultural Society, Greenwich, Conn. Unanimously adopted.

Paterson, N. J., Floricultural Society, "Ratified the action of our local committee of the N. A. G. The committee unanimously is in favor of this resolution."

Menlo Park, Cal., Horticultural Society, "The Menlo Park Society adopts the resolution submitted, i. e., The free transfer of any member of any horticultural society in good standing, provided the society from which said member formerly came has adopted a resolution in favor of free transfer of members.

It is known that other societies have taken favorable action but the Co-operative Committee has not yet received official notification

of the same.

Societies that have not yet voted on the resolution will confer a favor on the National Committee by so doing at an early date and advising what action they have taken.

Owing to the small number of papers that have been received for the Essay Contest, which closed on October 1, the winners of which were to be announced at the convention in December, the Essay Committee, which consists of William H. Waite, Chairman, W. N. Craig, Edwin Jenkins, Arthur Smith and Theodore Wirth, has decided to reopen the contest so that gardeners may enter it during the winter months, during which time they have better opportunity than any other season of the year to devote time to the writing of essays.

The contest will be continued until February 1 and the winners will be announced at the association's meeting during the National Flower Show in Philadelphia, in March, 1916. Details of

the contest are given below:

The Essay Committee has selected the following subjects for the essay competition for President Everitt's prize of \$100 m gold. The subjects have been arranged in four classes, as follows: CLASS 1 Prize \$35 gold.

Subject-Horticulture as a Profession, From the Standpoint of a Guidener

CLASS 2 Prize 825 gold. Subject. The Proper Grouping and Culture of Trees, Shrubs, Perennials and Annual Bedding Plants in the Ornamentation of Private Grounds

CLASS 3 Prize \$20 gold.

Subject Preparation of Ground for and General Treatment of Hardy Herbaccous Perennals. Naming a list of species (limited to one hundreds proceeding a succession of flowers throughout the entire season.

CLASS 4 Prize \$20 gold.

Subject How to Secure a Year's Vegetable Supply With the Aid of Cold Frames or Hotheds (but no Greenhouses), Includ ing Soil Preparation.

This essay competition is open to professional gardeners who are engaged in the capacity of superintendents, head gardeners or assistant gardeners.

A competitor is entitled to enter in one class only.

The broadest latitude will be allowed in dealing with each subject.

The essays are limited to 3,000 words each.

The closing date of the contest has been postponed until February 1, 1916, and the announcement of winners has been changed to the Nacional Flower Show, in Philadelphia, Pa., March, 1916.

The Essay Committee will appoint five judges, consisting of three gardeners and two representatives of the horticultural press. Contestants will address William II. Waite, Chairman of Essay Committee, National Association of Gardeners, P. O. Box 290, Madison, N. J., for further particulars.

Secretary, National Association of Gardeners:

I read the article you brought to notice in the October issue, among the notes of the National Association of Gardeners, namely, what some people require a gardener to perform for very meager pay. The party who arote to the association's office has evidently no idea of the status of a real gardener, and confounds his ideas with that of a general handy man who grows a few vahlages, feeds pigs and does the chores around the place. In bringing the above subject to our notice our secretary has shown once more his great endeavor to uphold the dignity of the profession, likewise also studying the employers' interest.

Many people are yet unaware that gardening is a profession calling for a long apprenticeship. The real gardener requires a knowledge of botany, chemistry and engineering besides being a thorough practical grower of flowers, fruit and vegetables.

The National Association of Gardeners is gradually bringing about an improvement in our position, but there are still many drawbacks to surmount; and to cite one or two instances, a multimillionaire two years ago acquired a large estate of 2,000 acres. He built a large range of greenhouses and bought many expensive virubs and trees to adorn his grounds, from a well known nurseryman. He was liberal in every undertaking connected with the leautifying of his place. He employed two chauffcurs to drive his ears, paying each \$150 per month with house, uniforms, vegetables, coal, milk. etc.

When it came to filling the greenhouses, the nurseryman submitted an estimate which totalled several thousand dollars and informed the gentleman that it would be first class stock—also that he could find a suitable man to superintend the entire place for

\$65 per month, and house, etc.

The employer was naturally pleased. A man was secured, but grew discontented with so much responsibility for such meager pay. He resigned in six months. Another was secured by the nurseryman for the same salary. He let a large portion of the plants freeze through not having competent help. The gentleman felt outraged and told the nurseryman he wanted the right man and did not want a \$65 man. He was willing to pay for the best.

The services of a first class gardener were secured and now after two years worry he is paying the same as he has always paid his chauffeurs and the average employer is willing to pay for what-

ever he derives any pleasure from.

I know of another case where a gentleman went to a firm and inquired how much he would have to pay for a good gardener. The man in charge told him \$50 per month and house for a married man or \$50 and board for a single man. He expressed astonishment and was skeptical as to whether he could obtain a real good gardener for that low salary. He was informed that that firm had supplied gardeners for years and had never filled a position higher than \$65 per month and house.

When the National Association of Gardeners becomes better known, as it surely will through the earnest efforts of its officers, the tiffs between man and employer will be less frequent and more satisfaction will accrue to the employer, who having the right man will find his place a source of great satisfaction and worthy of all the expenses incurred in maintaining it.

Our association is descriing of our highest praise and we should all try and help it uplift the craft we belong to, and not grow weary in well doing.

R. W. FOWKES,

Cooperstown,  $\lambda$ , Y.

#### AMONG THE GARDENERS

William Downs, superintendent on the E. S. Webster Estate, Chestnut Hill, Mass., has been confined to the house for several weeks as the result of a severe accident to his right leg. Mr. Downs fell and a three-hundred-pound case came down on his leg. He hopes, however, to be able to be in attendance at the N. A. G. Convention.

The coming convention of the National Association of Gardeners, to be held in Boston, December 9 to 10, is being anticipated with much pleasure by many of the gardeners in and around

Boston, and no stone will be left unturned by the local committee to have a well-attended and successful meeting.

James Brown, formerly of the Dewar Estate, Hyde Park, Mass., has accepted the appointment of head gardener to C. E. Bancroft, Newport, R. I.

Henry Eaton, formerly at the H. F. Sears Estate, Beverly Cove, Mass., is now head gardner to Dan Hanna, Cleveland, Ohio.

Angus McMillian, formerly gardener to Russell Robb, Concord, Mass., has accepted a similar position with Dr. H. F. Sears, Beverly Cove, Mass.

Arthur Griffin, former superintendent of the Geo. M. Landers Estate, New London, Conn., has resigned his position to accept a position of superintendent at "Greystone," Yonkers, N. Y., the estate of Samuel Untermyer.

Thomas Hatton, former superintendent of "Greystone," the Untermyer Estate, Yonkers, N. Y., has accepted the position of superintendent on the Geo. M. Landers Estate, New London, Conn., succeeding Arthur Griffin.

Thomas Hambleton has secured the position of head gardener on the Henry C. Phipps Estate, Spring Hill, Roslyn, N. Y.

Charles Ernest Carman, former gardener on the Henry Wardwell Estate, Springfield Center, N. Y., has accepted a similar position at Eastover Farms, Oyster Bay, N. Y., succeeding Henry Gibson.

Arthur Jackson, formerly gardener to Mrs. Moulton, West Orange, N. J., is now gardener to A. E. Newbold, Chestnut Hill, Pa.

David Frazer, superintendent of the H. C. Frick Estate, "Clayton," Pittsburgh, Pa., has re-opened the greenhouse range which has been closed for some time. This range supplies the cut flowers for Mr. Frick's New York mansion, and his summer home "Eagle Rock," Prides Crossing, Mass.

- J. Gary Curtis is recovering from a serious attack of pneumonia which has confined him in the West End Hospital, Pittsburgh, for the past month. Mr. Curtis has been superintendent of the George Westinghouse Estate since last April, incidentally continuing his duties as forester of the boroughs of Sewickley, Wilkinsburg and Donora.
- J. F. Zimmerman, superintendent of the William Carr Estate, Point Breeze, Pittsburgh, is building an additional house to the greenhouse range.

The large conservatory at "Greenlawn," the Henry J. Heinz Estate, Pittsburgh, was opened to the public while the Chrysanthemums were in bloom. The greenhouses, which are under the management of Aloysius A. Leach, made a fine showing, the public being no less interested in the hothouse fruits and vegetables, which are grown in the Heinz greenhouses, than they were in the fine blooms of Chrysanthemums on exhibition.

William Reid, gardener on the Colgate Estate, Orange, N. J., was recently appointed on the Board of Managers of the New Jersey Agricultural College, located at New Brunswick, N. J.

Alexander Thompson, of the Moses Taylor Estate, Mt. Kisco, N. Y., has accepted a position as gardener on the Edward Bayer's Estate, of the same place, and will assume his new duties on December 1.

Arthur Rose goes from the Bayer Estate, Mt. Kisco, N. Y., to the position of superintendent of the Lewis Estate, Saugatuck, Conn.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

EMIL T. MISCHE, President, Portland, Ore.

R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### **DUES ARE DUE**

By the time this issue reaches you, every member will have received a copy of our 1916 Year Book, Membership Roster, Constitution and By-Laws, etc., accompanying which is a Due Bill for 1915-16 dues.

Now do not pigeon-hole this bill for payment at a later date, but send in your remittance at once. It won't cost any more, and it will make possible the prompt payment of the bills of the Association. The officers want to get out some useful literature during this fiscal year, but do not propose to incur any expenditure beyond available funds in hand to pay for same.

#### OUR NEW MEMBERS.

Inasmuch as a majority of our membership did not attend the San Francisco convention and as an unusually large number of new members were admitted, space will be devoted this month to a brief summary of these new members, by way of introduction to the membership.

#### SENIOR MEMBERS.

ALBERT BIESCHKE, Noroton, Conn. Superintendent of "Great Island," an immense private estate, open to the public, where natural woods are being transformed and developed. Mr. Bieschke has been on this work for the past ten years, and for three years prior was connected with the South Park system of Chicago.

HEXRY W. BUSCH, Detroit, Mich. General Superintendent of Parks and Boulevards, which position he has held for the past six years, and for four year previous was Secretary and Deputy Commissioner.

W. C. CLAYBAUGH, Fresno, Cal. Superintendent of Parks at Fresno for the past four years, and for two years previous at DeKalb, Ill.

JAMES O. CONVILLE. Portland, Ore. Has been connected with the Portland park system for the past eight years, advancing from Assistant Superintendent to Superintendent in 1914.

CHARLES W. DAVIS, Memphis, Tenn. Has served for nine years in the Memphis Park Department, beginning at the bottom, and is now Superintendent. Memphis made a strong bid for the 1916 convention.

HENRY H. ELBERS, Buffalo, N. Y. Director of South Park Botanic Gardens, and formerly Superintendent of Humboldt Park. Seventeen years at Buffalo and a total of thirty-two years' experience in horticulture.

J. G. MORLEY, San Diego, Cal. Superintendent of San Diego park system for past four years, and in charge of planting and landscape work of the San Diego Exposition.

JOSEPH M. PAIGE, Pomona, Cal. Superintendent of Parks for the past six years, and prior to that was connected with the Missouri Botanical Gardens at St. Louis,

WM. R. READER, Culgary, Canada. Superintendent at Calgary for the past three years, and has had life experience on private estates in England and Canada.

DAVID F. ROY, Marion, Mass. Superintendent of "The Moorings," one of the best-known estates in New England. Mr. Roy has been located here for thirty years.

FRANK SHEARER. Los Angeles, Cal. Superintendent of Parks for the past six years, and for three years prior was Superintendent at Denver, Col.

JACOB UMLAUFF, Seattle, Wash. Head Florist for Seattle Park Department for the past four years, and for ten years prior was in charge of parks operated by the Seattle Electric Company.

#### JUNIOR MEMBERS.

WM. R. HANCOCK, Fergus Falls, Minn. Superintendent of Parks for the past four years, and previous landscape experience with nursery firms.

JOHN D. McEWEN, New York, N. Y. Superintendent of Parks for Queens Borough for past year. Previous experience in charge of private estates.

H. L. McGILLIS, Seattle, Wash. Park Engineer for past four years. Previous engineering experience with city engineering department at Seattle, and with C. M. & St. P. Ry, at Chicago.

WALLACE R. PIERSON, Cromwell, Conn. Superintendent of

Cromwell Gardens, a semi-public private park. Mr. Pierson had the misfortune to be compelled to submit to an operation for appendicitis upon his arrival at San Francisco and missed attendance at the convention.

#### ASSOCIATE MEMBERS.

WILLIAM ALLEN, New Orleans, La. Secretary of West End Park Commission. Mr. Allen was an important factor in securing the 1916 convention for New Orleans, and promises a bunch of new members and a banner time for our next convention.

JAMES F. DAWSON, Brookline, Mass. Landscape Architect connected with the firm of Olmsted Brothers for the past twenty years, and is known by park men all over the country.

CLOVIS DeGRELLE, Montreal, Canada. Landscape Architect of twenty years' experience. Specialist in rustic bridge work, notable examples of which are in LaFountaine Park, Montreal, and in parks of Bucharest, Roumania.

EVERETT C. LYLE, Bellingham, Wash. Landscape Engineer. Connected with Bellingham municipal work for past seven years.

DONALD McLAREN, San Francisco, Cal. Landscape Engineer connected with Panama-Pacific International Exposition, Son of our Honorary President.

DANIEL McRORIE, San Francisco, Cal. Landscape Architect. The man who came to the Newburgh-New York convention in 1914 and walked off with the 1915 convention for San Francisco, and who this year proved to be the champion single-handed entertainer of the session.

RALPH T. STEVENS. Berkeley, Cal. Landscape Gardener, University of California, for past three years, and has had ten years' practical experience with nursery firms.

#### PERSONAL AND OTHERWISE.

Our member, Laurie D. Cox, formerly of Los Angeles, now of Syracuse (N. Y.) University, has recently completed a study of the street tree situation in New York City, and a comprehensive report on the subject will be published shortly. Mr. Cox writes that he will send a copy of this report to every member of our association, a courtesy that will certainly be appreciated.

Lionel Evans, superintendent at Youngstown, Ohio, writes that since reading the reports of the San Francisco convention and trip, that he and his wife are kicking themselves because they passed up the convention this year. Mr. and Mrs. Evans are a genial couple who have graced recent conventions with their presence, and they promise not to err again.

Wm. R. Hancock, superintendent at Fergus Falls, Minn., has a position which only calls for employment six months of the year, hence is on the lookout for something more permanent. Mr. Wirth, of Minneapolis, vouches for Mr. Hancock's ability, and any information concerning an opening will be appreciated by Mr. Hancock.

Miss Charlotte Rumbold, for many years secretary of the St. Louis Park Department and in charge of playground work in that city, has been caught in the "political jam" and has been displaced. Commissioner Dwight P. Davis retired some months ago, and thus two of the best-known and most efficient park executives in the country are out of public service. We certainly hope they will continue in recreation work somewhere, as their permanent retirement from the work would be a distinct loss.

The standing which our association has in educational circles has been demonstrated during the last few months by calls on the secretary from the leading universities and libraries of the country for copies of our Bulletin No. 12, Concessions and Privileges in Public Parks, and our convention proceedings, all of which goes to prove that the opinion of the practical man, on the job, is desirable.

Wallace R. Pierson, who, while attending the San Francisco convention, was stricken with appendicitis and spent several weeks in a sanitarium, has fully recuperated and is on the job again at Cromwell, Conn., feeling like a new man and loud in his praises of treatment received at San Francisco.

The secretary is very anxious to make this personal column interesting, but in order to do so he must hear from the membership. When you send in your dues take the time to write a few

lines about what you are doing and how you are getting along, or any bright ideas you may have, and the secretary will probably find something in what you have to say that will be of interest to the other members. There is and should be a fraternal spirit among our members, and we all like to hear about the other fellow.

#### CONVENTION TRIP OF PARK SUPERINTENDENTS.

(Continued from September.)

Tuesday, August 17. At 9 o'clock the party left the hotel to board the steamer for a trip on the beautiful Bay of San Francisco, up the Alameda, Oakland and Berkeley side, past Richmond and Point San Pablo into San Pablo Bay, where the great Mare Island Navy Yard is located; then back, past Point San Pedro and San Quentin, Angel and Goat islands, returning to the hotel for a restful afternoon. After dinner all sojourned to the Hotel St. Francis ballroom, where we were the guests of the S. A. F. at a reception. Dancing was indulged in until about 11 o'clock, when all present were formed into line, to be received formally by the president of the S. A. F., Mr. Patrick Welsh, and Mrs. Welsh. Refreshments were served, and about 1 o'clock our party wended its way back to the Hotel Stewart, much pleased with a most enjoyable evening.

Wednesday, August 18.—This day was spent by the men in the business of the convention and by the women in writing let-

ters, shopping, etc.

Thursday, August 19. At 9 a. m. all boarded the cars for Oakland Ferry, the bay being crossed by the Creek route. On landing, we found that the park officials and several city fathers had provided autos, and away we went up the Mountain Drive, through groves of eucalyptus trees, with their spicy perfume, past beautiful Lake Merritt, with its wonderful municipal boat house, and then on to the Ostrich Farm, where ostriches in all their feathery array were seen; on to Lakeside Park, with its wonderful view and magnificent oaks; Peralta Park, with its municipal auditorium, athletic field and recreation grounds; Mosswood Park, with its deer paddock; Idora Park, the largest amusement park in the West; then up Diamond Canon to the heights overlooking the city and bay; then out to Berkeley, with its beautiful residences, geranium hedges and immense fuchsias. Here is located the University of California and the Greek Theatre, seating 7,000, endowed by William Randolph Hearst, where we saw Margaret Anglin in rehearsal; and then to Piedmont Park, where a delicious luncheon was served under the great trees collected from all over the world and planted by the late Frank C. Havens. We listened to speeches by the City Fathers and park officials, and then went to the Botanical Gardens, then took the ferry back to San Francisco. The evening was spent by the men of the party as guests of the Elks Club, where a stag smoker entertained from 8:30 to midnight. The ladies of our party attended the theatre as guests of the Park Board.

Friday, August 20. - The autos were at the hotel at 9:30, ready to take us around the city of San Francisco and its wonderful parks, Golden Gate, made from sand hills by the wizard McLaren. Here water falls, lakes and glens have been created where there was nothing but sand before, drives, athletic fields, stadium and the Portals of the Past; then to Lincoln Park and along the coast drive by the side of the great Pacific. As we passed along, we saw an aeroplane flight. Then we went on to the mountains. where we left the chill of the ocean side for the warm, congenial sunshine of the mountain pass; to Burlingame, to San Mateo, where we visited the wonderful Desablo Estate; then on up the mountains, along Spring Valley Water Reservation to a most delightful grove, where luncheon was served in the open. We were told it was just as delightful on a Christmas day. down the mountains by a different route, over the Crystal Spring Dam, built of 157,000 cubic yards of concrete, 176 feel wide, 176 feet high and 43 feet thick, costing \$1,500,000. After an uneventful ride home we reached the hotel at about 6 p. m.

Saturday, August 21. We left the hotel at 9:30 and took a bus to the Fair grounds, where the party separated into small groups. Here again we saw the work of the wizard McLaren. whose genius had transformed chaotic conditions into beautiful flower beds and gardens. As we passed through the main gate we were impressed with the wonderful evergreen walls and flower-Then we went on into the South Gardens, with 3.000 ing vines. feet of horticultural beauty and architectural grandeur, across the gardens to the Tower of Jewels, glittering in the sun, toward the west, to the Palace of Horticulture, down the Avenue of Palms to the Court of Four Seasons, past the Italian Towers to the Court of Flowers. We visited the Agricultural, Education and Horticultural Halls, then the buildings of Fine Arts, New York State, Oregon, Hawaii, where we enjoyed the weird singing and music of a native troup; then on through the Liberal Arts. State of California and The Netherlands buildings and out to the Marina, where lay the United States battleships Oregon, Santiago and North Carolina; then by electric chair for a tour over the grounds and to tea in the Chinese Tea Garden, and then to the Zone, where the beauty of the lighting is beyond description. For the small sum of ten cents we were permitted to view the wonderful picture of the nude. Stella, painted by Nain in 1893, and said to be worth one quarter million dollars, and so on, mid maze and wonder, till sheer exhaustion drove us home to the hotel and to bed, to dream of all the mental photographs our minds had taken. And so the first day at the Fair goes down in history.

Sunday, August 22. A well-carned day of rest. Some of us

Sunday, August 22. A well-carned day of rest. Some of us must needs keep up our records and go to church in the morning and to the Adler Sanitarium to see our friend Pierson in the

afternoon.

Monday, August 23. Men visiting triends; women shopping and theatre.

Tuesday, August 24.—Shopping and packing in the morning kept all busy. The afternoon saw us preparing for the concinuation of our journey south, and at 7 p. m. we left the hotel

and boarded the Southern Pacific train.

Wednesday, August 25. All up early to view sunny Southern California, the train making short stops at Burlingame, Palo Alto, San Jose, Santa Barbara, Oxnard, Santa Susana, and passing through Chatsworth Tunnel. We arrived at the Hotel Haywood, Los Augeles, at 10 a. m. The balance of the morning was spent in arranging railroad tickets, and after luncheon we boarded the Rapid Transit electric cars for Santa Monica Beach. We passed the military academy, poultry farms, cattle ranches, oil wells, beautiful homes of the bungalow type, with wonderful geranium hedges, the great eucalyptus trees everywhere; through Culver City, with its palm bordered streets and roadsides, and Venice City, on the Lagoon. We arrived at the beach, along which we strolled for miles and where hundreds of beautiful women bathed in one-piece suits, and whose swimming and diving equal that of the best men swimmers. Our appetites having been sharpened by the sea air, a number of the party elected to dine at Nat Goodwin's Pier Pavilion, surrounded on three sides by the ocean. As night came on, the full moon rose up out of the water and scattered its silvery rays a-dancing on the ocean. About 9 p. m. we boarded the electrics for the trip back to the city, and as we passed along the illuminations of Venice City Beach were viewed with admination.

Thursday, August 26. We left the hotel at 8:30 and boarded

the autos, together with the S. A. F., to South Park, according to programme. On Figueroa street we rode between two rows of magnificent palms, through Chester, where we saw a grove of giant bamboos. At the Doheny Estate we visited the wonderful palm house, 75 x 200 x 60 feet high, with an immense swimming pool in the centre of it. Continuing our journey, we passed the celebrated Hershey Arms, reputed to be the most exclusive hotel in America. A little further on, up on the Hollywood Mountain, we saw the Romish shrine, where the city people of that faith go up to worship. Onward we rushed into Pasadena, and up the mountains, winding in and out for two hours, making over four hundred turns to all points of the compass and at many of them we came on the most wonderful views of the fertile valley below, with its farms and the city stretched out as far as the eye could see. In many places the cliffs along which we rode dropped down thousands of feet. At last we came to the top, and an awe-in-piring scene presented itself. Then came the descent, which, if anything, was more hazardous than the ascent. When about three-quarters of the way down the mountains, we suddenly halted, at about 12:30, in a beautiful grove, where the Spanish barbecue, consisting of the following, was served:

Billee Fare Cabeza Tatemada Frijoles Conchili Carnero Azado Salza

When all had eaten and appeased their thirsts, we again boarded the waiting antos, at 2 p. m., and off we went to the Busch Gardens, a most picturesque, park-like estate. Although the name of the place is associated with a certain beverage, none was to be had, so we again embarked for the Huntington Estate, where refreshments were served to a very thirsty crowd. Here we saw a wonderful caeti garden, with hundreds of varieties of rarest plants. When all had been refreshed, internally and optically, we again sounded the Klaxtons and were off for the hotel, via Eastlake and Elvsian Parks, arriving about 6 p. m., tired, dusty and hungry, but satisfied that we had been well poid for the trouble and much enhanced in knowledge. Most of our party went early to bed, to be up ready for an early start for San Diego.

Friday, August 27.—Left Hotel Haywood, Los Angeles, at 8:30, all aboard the Santa Fe Railroad. As we pulled out of the station we ran along the river bed where four mule teams were carting out sand. It is said that at this place a despondent man jumped from one of the beautiful concrete bridges in an attempt to commit suicide, but merely got himself all dusty. We afterwards crossed several dried-up rivers and as rain is unknown for eight months in the year, irrigation is absolutely necessary

everywhere. Here we passed through miles and miles of orange groves planted in light, sandy soil, and saw train loads of sugar beets, dozens of oil wells, and great herds of cattle. Down the Santa Anna Valley we rushed, to the level farm lands, with thousands of acres of beans, coin, sugar beets, melons, etc. The soil is rich, black loam, worked with eight-horse plows. Then we came to San Juan and the ruins of the mission of San Juan Capistrano, the first established by the Franciscan monks, where the road leads down to the Pacific. For thirty miles or more we rushed along the shore, with the waves breaking almost at the rails, with sharks and porpoises playing in the ocean, and auto parties camping along the beach, a most picturesque sight. We stopped at Del Mar Bathing Beach long enough to take on another engine to help push us up the cliffs along which we ran, at a height of several hundred feet, crossing over canyons which, in the rainy season, are rushing mountain torrents.

Again we came to miles and miles of beans, then down the cliffs to the city of Ocean Side, and then on to San Diego, arriving at 12:50, where we took autos to the Hotel St. James. hurried wash up and lunch, we were again bundled into autos by the park officials at 2:15 p. m., and off to Mexico. about sixteen miles, through a most wonderful assortment of groves of oranges, lemons, dates, figs, apricots, olives and grape fruit, passing through National City, Chula Vista and Palm City, where are located the great sea salt works, the salt being obtained by evaporation. Then we passed the horders into Mexico, and were held up and searched by a Mexican officer in quest of arms or ammunition. When we arrived at Tia Juana, our destination, we attended a small fair and saw open gambling by men and women at roulette, dice, cards and slot machines. The side shows tlaunted signs inviting the public, at "two bits" (25 cents), to see a nude woman pose. There was fortune telling, mind reading, etc., and when you think of San Diego, Cal., within sixteen miles, like Heinz, with its fifty-seven varieties of churches, it is easy to realize why the Mexicans are so little respected. As we again entered dear old U. S. A. we were held up and searched by a customs official, looking for dutiable goods purchased in Mexico.

Then we went on to Coronado Beach, with its unique tent city of over two thousand palm roofed houses and beautiful white hotel; across the ferry and out to Point Loma, to witness a most glorious sunset and a bay view claimed to be equal to Venice or the Bay of Naples. Then we went on to the Caves and Sunset Cliffs and back, in the cool of the evening, to the Hotel St. James, arriving at 7:30 tired, dusty, but rejoicing in having spent one of the most enjoyable afternoons of our trip.

Saturday, August 28. At 9:30 a.m., all aboard the park autos. Under the guidance of Superintendent Morley we visited the Old Town and Ramona's marriage place, a most romantic old mission, containing curious antiques, a stage coach, the old Wishing Well, etc. Many dated back to 1700. Then we visited the Stadium, a remarkable structure 630 feet long by 300 feet wide, built by the Park Department at a cost of \$150,000. We went next to the public playgrounds, then through residential streets lined with beautiful palms and flowers and on to Balboa Park, consisting of 1,400 acres, half of which are undeveloped, except for a most complete road system. Next to the Fair grounds, where a delicious luncheon was served in the Administration Building, and after lunch our party separated to view the grounds and buildings, each to its own taste; the organ recital, the myriads of tame pigeons, which settled on our heads and shoulders, causing much

merriment.

The beauty of the buildings and grounds in some way even exceeded the San Francisco Fair although not so extensive. The model bungalow, the model farm, etc., were most interesting. About 6 p. m. all sojourned to the hotel for a nunch-needed rest.

Sunday, August 29.—We left San Diego, the train pulling out at \$140 a, m. After an uneventful ride we went back over the Santa Fe to Los Angeles, arriving on time at \$12.50. We jumped into autos and rushed over the Viaduet to the Salt Lake Ronte of the San Pedro, Los Angeles and Salt Lake Railroad, leaving at \$1.25 p, m., passing Pomona at \$2.18. We saw great groves of walnut trees and fields of sunflowers, acres and acres of fig trees and fields of teasels, and gradually climbed up into the mountains, which are covered with sage, with here and there, little bunches of cacti and dwarf palms. By 6 o'clock we were again in the valley, where many Gueca palms were seen. Belind, the mountains shone, a beautiful purple, in the sunset. During the night we crossed the nountains of Nevada and went thrown a dozen tunnels.

(Space would not permit carrying the story to its completion in this number. It will be concluded in the December issue.—Editor.)

Send your subscription (\$1.50 a year) to THE CHRONICLE PRESS, Inc., Publishers The Gardeners' Chronicle of America 286 Fifth Avenue, New York

#### THE DRIFT OF MODERN RECREATION.

By Towix Dr. Greot, California, (Continued from September.)

Then I think park boards have found that children of all ages and both sexes do not get along well in play. That is to say, boys and girls play very well together up to possibly nine or ten years of age, but above that age it seems as though the girls need a separate place if they are to have a really good time, and likewise the boys. They need a different kind of play space, if they are to let alone the little children. The problems are solved greatly when some division of space is worked out—spacing the children off if you please.

Then, I think the boards are seeing the necessity of having real recreation in the playgrounds, or else getting out from under the supervision altogether. I believe there are many possibilities there that have not been worked out. Every community is becoming more and more alive to this supervision—the women's clubs, chambers of commerce, the schools and the like.

Why cannot the park boards say: "We will supply the areas. We will give you our rules and regulation, etc., now, you furnish the kind of supervision that you want." Mr. Manning of Baltimore, has done something of the sort for years. He supplies the physical equipment, the ground and up-keep, etc., then the playground commission supplies the supervision which is demanded there, but which we could not always call adequate.

And here again, it seems to me, there is a larger problem to be met in the park development. I wonder if we have not reached the time when large parks which were developed many years ago-it is only some thirty or forty years ago that we started real park development, but we have in all large cities parks, which when they were begun, were in the suburbs; now I wonder if the time has not come for developing more parks in the outskirts to carry on these fine planting schemes, and these nature systems and other wonderful things in our park development, and utilize the older parks for recreation facilities. There is this crying need of facilities every year, more tennis courts, more swimming pools, more row-boats. more everything that represents facilities for this active recreation. I wonder if we have not reached the time when we must give considerable thought to using parks in the interior of the cities for this active recreation; giving these parks architectural treatment. rather than this beautiful landscape treatment, of course never giving up certain landscape treatment; but couldn't we carry the people into the parks by subways, etc. Certain parks are now fighting companies who wanted to go through them with their electric lines. Why not suggest the tunneling under the parks and carrying the people in street care under the parks and letting them out at places where we can develop a beautiful architectural feature in the parks and bring these people into the very center of the parks; and why should we fail to allow people go through in automobiles? People, if they had parks at periphery of the city, could reach them with Fords everyone has a Ford these days—consequently these parks at the edge of the city are more easily reached than were the present parks in the earlier years. See how much we could gain in areas of tennis courts, and see how much more these parks in the outskirts would in truth become recreation grounds where you could step upon everything.

I think we have got to squeeze some of the water

out of the stock—that this park is a place of rest. Go into any one of these parks today and you think of safety first, always, because you can hardly go anywhere without encountering automobiles and flying missles. They are not restful places. So we should hike out to the periphery of the city and go into a larger development than we have heretofore.

Now in the schools: There is a very distinct drift there. Architects and school people generally are coming to realize the necessity for planning the school yard as they are now planning the school buildings. Intensive development has struck the school architect and the school with man and marm. No longer are people satisfied with this one sided sort of yard or grounds. A large assembly place and several class rooms are now had.

Now, if that drift is followed—and I believe it will be very rapidly in the succeeding years—the school people are going to take hold very vigorously of playgrounds for children and the park boards will take hold of the supervision of children's play in the parks and the school boards will do more than before and will find the utilization of the school yards after school is one way in which the homes can be brought into the schools. Parent Teachers' Associations have been formed in every community and every effort made to bring its schools and families together, but the more the parents that discuss the modern curriculum etc., the more at sea they seem to be; and the parents and children are not getting together very readily. · But this leisure time, what to do with the children from the time they get out of school until they go to bed, is the real problem, and here the school sets up the playground and children will be registered for play as they are registered for music, drawing or anything else, in the class room, and the parents will then know the children have been cared for after school as well as in school; and I believe that is the drift.

What is the drift with reference to the playground commission? It seems to me the playground commission will become the recreation commission; that they will give up the treatment of problems of play for general classification of the grammar grades, and will go into the dance halls, municipal camps, bathing beaches, etc., rather than play of smaller children. I believe we are going to make a fine distinction in the future between children and adults. Adults take pleasure in some sort of recreation. Children take play They have just one business in life—play. They live to play and they play to live. Play will be for children and recreation for adults, and the question of play for children is going to be tremendously inclusive as an educational problem; therefore, the educators are going to take a larger hand, thus leaving the park commission to direct more largely the activities of the people at large.

Now, these various co-operative methods. I believe we have stood aloft too much in various communities The school board has said, "This is our business; it is none of your business." To the Park Board, and the Playground Commission has said the same thing.

And so co-operation must enter into all municipa' endeavor. Playground and school and park groups must get together and cut out this overlapping and duplication of expense and the like. The tax-payer is complaining more and more every year, and economy is the watchword, and we are going to progress through co-operation. Now, that is, I mean the Park Board will have certain functions and the other two boards the same, and they will supplement each other and not duplicate each other in facilities and expenditures.

I believe very often we could have one recreation superintendent in the cities. San Francisco is bringing the school-board and the playground commission together, and the State Normal School in this same circle. There is a fine illustration of co-operation. So, in the personnel there are various ways of co-opera-

This tendency is abroad: To make recreation pay its own way. You have had animated discussion as to what should be paid for. I think once we establish that play is for children-and we are going to work out certain facilities in a certain manner. We shall not make them pay, but when it comes to amusements and diversion, and so forth, for those facilities we are going to make them pay. I don't mean make them pay. I believe the public will demand the right to pay. pay. His majesty, the American citizen, likes to pay his way. Take the young man who only earns seven or eight dollars a week, and what does he do? He goes down the great white way and insists upon buying his recreation; and that is one reason why our parks are not more largely used, they are too free.

Certain things should be charged for, and people

would patronize them more than they do.

Now the whole world is on a strike for higher pay and less work, and that means we are going to have more leisure and less work. The mass of people have more leisure than ever before, perhaps.

Running parallel with that law was another one that of limited consumption. We thought a few years ago that we should wear the old suit for years; that everything should be made to go as far as it would. We insisted that the wife make and remake her

gowns, over and over again.

We do not believe in limited consumption. We believe in unlimited consumption, and every one is consuming just as much as they can. We have discarded the suit of clothes. The wife has discarded her hat and the old gown, and we are getting new ones. We discard the automobiles of 1915 that we may get one of 1916, and the most significant thing is this: we have become the most unlimited consumers of commodities and of play in the world. All the countries of Europe have kept quite steady in their recreational pursuits. We go out to buy our play for five or ten cents, and the kind we buy often condemns us.

We like to buy our leisure, therefore, isn't it reasonable to give some consideration to letting people pay their own way for recreation? Not for play, because that relates to children, and children should not be made to pay a fee for any phase of their play, it seems to me, but the adults and the working people like

to buy their own play.

We have seen in a good many communities a wheel tax—and do you notice the people who own automobiles pay this tax quite readily, particularly where the law says all money coming in for this tax must be spent for the repair and upkeep of good roads? The man who owns an automobile pays an automobile license and for the things in connection with that machine, yet pays this tax quite cheerfully. Why? Because the law says this tax will be paid out for his further pleasure.

Now, if we work our hardest for park development and just tell the people the more money we put into the parks will be for their greater pleasure, they will flock to them, and respond, as they have not responded

before.

## Our Native Birds' Protectorate

Under the Direction of the Committees on Bird Preservation and Propagation. National Association of Gardeners, L. H. Jensen, St. Louis, Mo., Chairman. American Association of Park Superintendents, Hermann Merkel, New York, Chairman.

#### ENEMIES OF HOUSE BIRDS.\*

Birds have numerous enemies from which a careful landlord will try to guard them. Among these is the English sparrow, whose persistent attacks too often drive more desirable birds away from their nests and from the neighborhood. European starlings, which at present are not distributed beyond a narrow strip of the Atlantic coast region centering about New York, are to be condemned for their pernicious interference with native house birds.

Cats and large snakes are enemies of birds, the former perhaps killing more birds than any other mammal. Trees and poles supporting houses should be sheathed with tin or galvanized iron to prevent these enemies from climbing to the nests. Squirrels give more or less trouble by gnawing houses, eating eggs, and killing nestlings. Red squirrels in particular, have a very bad reputation in this respect, and many experimenters keep their grounds free from them. Some regard flying squirrels as but little better than red ones. Even gray and fox squirrels are occasionally troublesome. It is not necessary, however, that bird lovers should wage indiscriminate warfare against all squirrels. It is far better to adopt the rule never to kill a squirrel unless there is reason to believe that it has acquired the habit of eating eggs of young birds; the result will probably be that not more than one red squirrel in fifty nor more than one gray squirrel in a hundred will have to be killed. Where squirrels are numerous they give more or less trouble by gnawing and disfiguring houses. This damage may be prevented, however, by covering the parts about the entrance with tin or zinc.

A means of attracting birds about human habitations is to furnish an abundance of food, preferably in food shelters. If one is unable to make shelters that will protect food in all kinds of weather, the food may be fastened to trunks or branches of trees or scattered in sheltered places on the ground. A decided advantage in having shelters, aside from that of protecting food, is that they may be placed where the birds can be watched conveniently. When shelters are used the birds are first baited by placing food, such as suet, seeds, or cracked nuts, in a conspicuous place, and then led by degrees to enter the inclosure.

The location of a bird house or food shelter has much to do with its success, for the reason that birds have decided notions as to proper surroundings for a dwelling. Martins prefer to breed near houses, but not within 20 feet of trees or buildings. Bluebirds are inclined to select orchards or pastures having scattered trees. Wrens, thrashers, and catbirds live in thick shrubbery. Robins like trees with sturdy trunks and branches. Titmice, nuthatches and most of the woodpeckers are woodland species, although flickers and red-headed woodpeckers are more at home among the scattered trees of roadsides and pastures. Song sparrows frequent weedy swales and brush fences. Swallows do not enter woods so that a house would be as attractive to them in one open place as in an-

other. The eastern phoebe, the black phoebe, and the house finch, while not limited to the haunts of man, are noticeably partial to them. Crested flycatchers, screech owls, barn owls, and sparrow hawks are governed more by convenience than by taste; although normally inclined to hold aloof from man, they have in many instances reared their broods in close proximity to dwellings. Barn owls, true to their name, accept suitable quarters in builidings without hesitation.

Before erecting bird houses one should first determine the kinds of birds to which his premises are adapted. The question usually next arising is as to the number of birds than can be accommodated. Unless grounds are large, it is generally useless to expect as tenants more than a pair of each species, except martins. However, the singular intolerance shown by most birds during the breeding season to others of their kind does not operate between those of different species. A dozen different kinds of birds will pursue their several modes of hunting and raise their families in the same lot, but rarely two of the same sort. The fact that birds are more tolerant toward strangers than towards relatives was well illustrated by an observation made recently by the writer in New Mexico. A one-story tool house 10 feet square had nailed to three corners of its roof rough bird houses made from packing boxes. One was occupied by violet-green swallows, another by western blue birds, and the third by English sparrows. A still more remarkable association of different species has been reported by Otto Widmann, of St. Louis, Mo., who once had a pair each of flickers, martins, house wrens and English sparrows nesting simultaneously in the same house. Of all our house birds, martins alone are social. The fact that there is a limit to the possible bird population on any given tract must be taken into consideration. When the probable tenants have been decided upon, the selection of sites is in order, for the site often decided the style of house that is to occupy it. In the final placing of bird houses, care should be taken to have them face away from the winds prevailing in stormy weather. The strongly developed homing instincts of birds can be relied on to attach them to the neighborhood where they first saw the light, and the identical pairs which nest in the houses provided for them one year will often return the next season to enjoy the same bounty and protection.

Statement of the ownership, management, circulation, etc., required by the Act of Angust 24, 191. If THE GARDENERS CHRONICLE OF AMERICA, published monthly at New York, N. Y. for October 1, 1915. Editor, M. C. Ebel, Madison, N. J.; managing editor, M. C. Ebel, Madison, N. J.; business manager, Geo. A. Burniston, Madison, N. J.; publisher, The Chronicle Press, Inc., 286 Fifth avenue, New York, N. Y. Owners (If a corporation, give its name and the names and address of stockholders holding 1 per cent, or more of total amount of stock. If not a corporation give names and address of individual owners); The Chronicle Press, Inc., 286 Fifth avenue, New York, N. Y.; M. C. Ebel, Madison, N. J.; Geo. A. Burniston, Madison, N. J.; M. E. Burniston, Jersey City, N. J.; J. A. Burniston, Jersey City, N. J. Known bondholders, mortgagees, and other security holders, holding 1 per cent, or more of total amount of bonds, mortgages, or other securities (If there are none, so state.): There are no bondholders, mortgagees or other security holders.

GEO. A. BURNISTON, Business Manager.

GEO, A. BURNISTON, Business Manager.

Sworn to and subscribed before me this first day of October, 1915 F. IRVING MORROW, Notary Public. (Seal.)

<sup>\*</sup>From a Bulletin by Ned Dearborn, Assistant U.S. Biologist

<sup>(</sup>My a mem son extens August 5 10)

## SCHENLEY PARK (PITTSBURGH, PA.), SHOW.

While nobody seemed in the least at fault there was unmistakably a bad mistake in the date announced for the big annual Chrysanthemum show in the Phipps Conservatory, Schenley Park, Pittsburgh, Pa., this month. (All, from Superintendent George W. Burke, of the Bureau of Parks, to the reporters on the daily papers, refused to shoulder the blame.) lay in that the respective papers reported that Mr. Burke had announced the opening to be on October 7, whereas it was really on the thirty-first; this being further emphasized by big notices on the front of the Pittsburgh Railways' cars. Notwithstanding, Foreman John W. Jones had his celebrities appear promptly as he had originally planned for, "the last Sabbath and day in October." They were all there-Mrs. J. Purroy Mitchel, Reine Wilhelmine, Mrs. Gilbert Drabble, Mrs. H. J. Jones, S. A. Watt, W. Mease, Rider Haggard, Lord Kitchener and the others, big and little, but it goes without saying made their premiere appearance before a painfully small audience. However, in reply to the newspaper and street car summons, the masses appeared almost by magic on the morning of the seventh, continuing until the doors closed at five o'clock; each day since having a most gratifying quota of appreciative visitors from not only the rank and file, but from the higher walks of life.

Without exception this year's exhibition was the most beautiful of any in the existence of the Schenley Park 'Mum shows. Three large houses were devoted exclusively to the big blooms, which were bordered by the smaller varieties. The two larger houses were arranged in mounds, which showed the most harmonious color effects, the light seeming almost to melt into the darker and richer shades. In striking contrast was the smaller apartment, which the admiring "Layman" could liken to only a huge mixed Dutch bouqust, so varied and brilliant was the massing, with, however, not the slightest suggestion of confusion.

The Phipps Conservatory in West Park, North Side, opened as scheduled on October 31, the enthusiasm of the thousands of visitors reflecting the greatest credit on Foreman James Moore and his men. There were eighty-five varieties of 'Mums shown this year, with more than 5,000 single stemmed specimens, with about 1,500 Pompons in myriads of blooms of every color.

## HORTICULTURAL SOCIETY OF WESTERN PENNSYLVANIA.

The Horticultural Society of Western Pennsylvania was organized on Friday evening, November 5, in the lecture hall of the East Liberty branch of Carnegie Library. About thirty-five private and landscape gardeners were present and elected the following officers to serve during the coming year: David Fraser, president; William Allen, vice-president; Thomas Edward Tyler, secretary, and William Thompson, Jr., treasurer. Mr. Fraser has been the head gardener on the H. C. Frick estate, "Clayton," for the past nineteen years; Mr. Allen is superintendent of the Homewood Cemetery; Mr. Tyler is the orchid grower for Charles D. Armstrong, and Mr. Thompson is in charge of William Penn Snyder's Sewickley Heights estate, "Wilpen Hall." There was also a committee appointed to draft resolutions composed of the following: Messrs. Fraser, Allen, Ernest Guter, Walter James

Richard Beatty Mellon grounds; Mr. James is with W. Henry R. Hilliard, and Mr. Weisenbach is head gardener for William Larimer Mellon.

Brief and suggestive talks were given by William Thompson, Sr., who has charge of the Craig estate in Sewickley; Aloysius Anthony Leach, of H. J. Heinz's "Greenlawn"; Henry Fortune, a landscape gardener; Messrs. James and Fraser. It was decided to have the society meet semi-monthly in the East Liberty branch, the dates to be decided at a special meeting to be held shortly. At this session an executive committee will also be appointed. The membership list is not to be limited to professional men, but will be open to amateurs and all persons interested in horticulture. There will be monthly exhibitions at the hall, but special endeavor is to be focused on a Chrysanthemum and Spring Show on a large scale, which will probably be held in Exposition Hall or Duquesne Garden.

While the majority of the private gardeners hereabouts are affiliated with the Florists' Club of Pittsburgh, for some time it has been deemed advisable to have an independent organization, owing to such subjects as lawn-making, vegetable gardening, various annuals, etc., being of no vital interest to the commercial florists, and therefore being practically precluded at their sessions. A number of wealthy horticultural amateurs, especially greenhouse owners, are much interested in the new organization and undoubtedly will lend practical support to the enterprise. Notably among these are Charles D. Armstrong and Richard Beatty Mellon.

#### ALLEGHENY COUNTY GARDEN CLUB

The annual meeting and election of officers of the Garden Club of Allegheny County will be held on Friday afternoon, November 26, at the home of Mr. and Mrs. Finley Hall Lloyd, near Shields. The club is having a full schedule this month, the members being entertained on the fifth by Mr. and Mrs. William Larimer Mellon, of Darlington road, and on the nineteenth by Mr. and Mrs. William Larimer Jones at the Pittsburgh Golf Club.

## INTERNATIONAL GARDEN CLUB.

The International Garden Club opened the fall season at its club house, Bartow Mansion, Pelham Bay Park, New York City, on Thursday, November 4, with a lecture on "Hardy Chrysanthemums," by Charles H. Totty, Madison, N. J. An audience of about one hundred and fifty members and friends listened to Mr. Totty's interesting talk which was illustrated with subjects of early flowering and pompon varieties. After the lecture tea was served.

On Thursday, November 18, Mr. Alexander Cummings, formerly in charge of the Rose Gardens, Elizabeth Park, Hartford, Conn., now with the A. N. Pierson, Inc., Cromwell, Conn., will lecture on "Outdoor Roses." His lecture will follow a luncheon which will be served at the club house on noon of that day.

Mrs. Charles F. Hoffman, president of the International Garden Club, is very enthusiastic over the progress that this new organization is making, and declares it will fulfill all it has undertaken to accomplish even sooner than its sponsors at first anticipated. The club house is completely furnished and next spring will witness great activity about the grounds, which are to be laid out in many gardens.

#### ELECTRICITY AND PLANT LIFE.

1 Continued from page 499.

conditions electric stimulation has increased crop yields of many kinds. The favorite method of application has been to date to cause a high tension discharge to the ground from insulated conductors arranged over the growing plants. It has also been observed that the positive discharge gave better results than the negative one.

Electric stimulation appears not only to affect vegetation but has a similar effect on living creatures. Experiment in connection with chicken raising shows that young chickens subjected to an electrified atmosphere for a certain interval each day develop not only greater vitality and a consequent reduced mortality but also show a much more rapid growth under the same feeding or an equal growth with a more limited diet. On an Oregon farm a stock raiser has wired his sheep pens with Mazda lamps. The light of the pens induced the sheep to feed early in the morning and late at night, besides their regular diet during the day, which served to fatten them up for the market weeks in advance of the ordinary sheep shipping day.

Much more experimentation is needed in Electro Culture so that definite principles may be set down and the effects of electric stimulus be assured with the accuracy obtainable in all scientific and engineering work.

In many experiment stations data is now being collected by engineers on the staff of the Society for Electrical Development on this subject, to be published during "Electrical Prosperity Week," November 29 to December 4, when the record of electrical achievement for the last twenty years will be heralded in every city and town of the United States.

#### AMERICAN ROSE SOCIETY.

The Executive Committee of the American Rose Society held a meeting in New York City, President Pennock presiding. The matter of the annual bulletin with the proceedings for 1915 was gone over, with the plan of making improvement in this publication, and the J. H. MacFarlane Co., of Harrisburg, made a proposition to issue the same in a much better form than heretofore, and this proposition was accepted, and the same will come out after the first of January, embodying the transactions of the year with colored illustrations.

The matter of cost of affiliated membership was gone over with some detail. At present the affiliated membership is ten cents for each member, and after careful consideration it was moved that the associate membership be changed from ten cents to twenty-five cents per member; this change to be put into effect January 1, 1916.

The premium list for the exhibit of 1916, to be held in Philadelphia at the National Flower Show from March 25 to April 2, was submitted and gone over carefully, covering roses in pots and tubs, table decorations, blooms by commercial growers and blooms by private growers. The total amount of premiums to be awarded is \$2,500.00.

Mr. C. T. Tansill, of the Washington Test Garden Committee tendered his resignation, and it was moved that Mr. Wm. F. Gude, of Washington, D. C., be appointed to fill the vacancy, and Mr. Gude has accepted the position. BENJAMIN HAMMOND, Secretary.

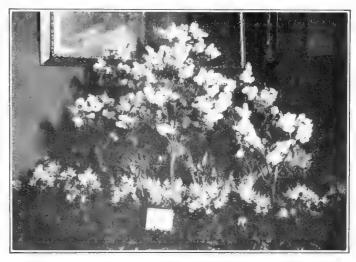
#### HONORING JOHN McLAREN

That was a happy thought of the authorities at the San Francisco Exposition when they gave one day of their program to honoring John McLaren, the maker of Golden Gate Park, and who has been instrumental in adorning the exposition grounds. In doing honor to this able horticulturist, the San Franciscans have unwittingly paid a high compliment to the gardeners' art, for although so many people in these days are too squeamish to acknowledge that a "landscape engineer" (save the mark) is a "gardener," that is just what he is, first, last and all the time. Or shall we be merciful and say that that is what he ought to be but too often is only the "engineer," and leaves the real gardener who has to follow him, and who has to try and grow plants and shrubs in some of the impossible places he has planned—he leaves the latter with a rich legacy of difficult problems or cultural impossibilities. If all the "engineers" knew as much about the real gardening part of the business as they ought to, there would probably be many more cosy and effective gardens up and down the land. The work of John Morley at San Diego deserves to be similarly honored to John McLaren's.

#### FLOWERING LILACS IN NOVEMBER.

The exhibit of flowering lilacs at the show of the Horticultural Society of New York, made by John Scheepers, and awarded a silver medal attracted a considerable amount of interest and proved one of the attractive displays of the show.

These plants, packed in a way to insure their remaining dry, were put into cold storage last December and after



GROUP OF FLOWERING THEACS AND SPIREAS ON EXHIBITION IN NOVEMBER AT THE HORTICULTURAL SOCIETY OF NEW YORK LATE, SHOW

being retarded for eleven months, they proved better than lilacs which arrive fresh from Europe and are then forced.

The trusses were larger than those from fresh lilacs; one plant bore as many as fifty-nine perfect trusses, while they were grown from only regular size potgrown plants; a remarkable thing is that after being for five days in a dark corner of the overheated museum, barely watered, they were in as perfect condition when they left the museum for the Plaza Hotel, where they are now on exhibition, as they were when they left the greenhouses where they were grown.

Not all the plants so treated and retarded flowered in perfect condition; a considerable percentage would not flower at all, but Mr. Scheepers hopes to succeed one hun-

dred per cent. next year.

## NATIONAL ASSOCIATIONS

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st., N. Y.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Dahlia Society. Joseph J. Lane, secretary, 11 West 32d st., N. Y.

American Gladiolus Society. Henry Yonell, secretary, Syracuse, N. Y.

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 40 West 28th st., N. Y.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

Women's National Agricultural and Horticultural Association. Miss Margaret Jackson, secretary, Engle wood, N. J.

## LOCAL SOCIETIES

Bernardsville Horticultural Society. W. G. Carter, secretary, Bernardsville, N. J. First Monday every month, Horticultural Hall, 7:30 p. m., Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Third Tuesday every month, Horticultural Hall, Boston, Mass., 8 p. m.

Cleveland Florists' Club. Frank A. Friedley, secretary, 95 Shaw avenue, East Cleveland, Ohio. Second Monday every month, Hollenden Hotel, Cleveland, Ohio.

Cincinnati Florists' Society.
Alex. Ostendorp, secretary, Cincinnati, Ohio. Second Wednesday every month, Jabez Elliott Flower Market.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Detroit Florists' Club.
R. H. Wells, secretary, 827 Canfield avenue,
Detroit, Mich.

Third Monday every month, Bemb Floral Hall.

Dobbs Ferry Gardeners' Association. B. Harms, secretary, Dobbs Ferry, N. Y. Last Saturday every month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls, N. Y.

Second Wednesday every month except May and June, Poughkeepsie, N. Y.

Elberon Horticultural Society.

George Masson, secretary, Oakhurst, N. J. First Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Essex County Florists' Club. John Crossley, secretary, 37 Belleville avenue, Newark, N. J.

Third Thursday every month, Kreuger Auditorium.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass. Second Tuesday every month.

Florists' and Gardeners' Club of Rhode Island.

William E. Chapell, secretary, 333 Branch avenue, Providence, R. I. Fourth Monday each month, Swartz Hall.

Gardeners' and Florists' Club of Baltimore.

N. F. Flittin, secretary, Gwynn Falls Park, Sta. F. Baltimore, Md.

Second and fourth Monday every month, Florist Exchange Hall.

Gardeners and Florists of Ontario. Geo. Douglas, secretary, 189 Merton street, Toronto, Canada.

Third Tuesday every month, St. George's Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New

York City.
Monthly, irregular, May to October, New
York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Houston Florists' Club.

A. L. Perring, secretary, 4301 Fannin street, Houston, Texas.

Meets first and third Monday, Chamber of Commerce Rooms.

Lake Geneva Gardeners' and Foremen's Association.

Raymond Niles, secretary, Lake Geneva, Wis.

First and third Tuesday every month, Oct. to April; first Tuesday every month.
May to Sept., Horticultural Hall.

North
Westchester County Horticultural and Agricultural Society.

Lenox Horticultural Society. John Carman, secretary, Lenox. Mass. Second Wednesday every month.

Los Angeles County Horticultural Society. Hal. S. Kruckeberg, secretary, Los Angeles, Cal.

First Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society. Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Minnesota State Florists' Association. Gust. Malmquist, secretary, Fair Oaks Minneapolis, Minn. Third Tuesday every month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Fourth Friday every month, Red Bank.

Montreal Gardeners' and Florists' Club. W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J.

Second Wednesday every month, except July and August, 8 p. m., Madison, N. J.

Nassau County Horticultural Society. Harry Jones, secretary, Glen Cove, N. Y. Second Wednesday every month, Pembroke Hall, 7 p. m.

New Bedford Horticultural Society. Jeremiah M. Taber, secretary, New Bedford, Mass.

First Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street, Orange, N. J.

First Monday every month, Jr. O. W. A. M. Hall., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London, Conn.

Second Thursday every month, Municipal

New Orleans Horticultural Society. C. R. Panter, secretary, 2320 Calhoun street, New Orleans, La.

Third Thursday every month, Association of Commerce Bldg.

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club. John Young, secretary, 54 W. 28th street, New York.

Second Monday every month, Grand Opera-House.

North Shore Horticultural Society. Leon W. Carter, secretary, Manchester, Mass.

First and third Fridays every month.

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

and Agricultural Society.
M. J. O'Brien, secretary, Mt. Kisco, N. Y.

Third Thursday every month, except June to August, at 8 p. m.; December to February, 3 p. m.

Oyster Bay Horticultural Society. A. R. Kennedy, secretary, Westbury, L. I. Fourth Wednesday every month, Oyster Bay, N. Y., 7:30 p. m.

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 432 Phelan Bldg. San Francisco, Cal.

First Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month.

Paterson Floricultural Society. Sebastian Hubschmitt. Jr., secretary, 61 Seventh ave., Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society.
David Rust, secretary, Broad and Locust
sts., Philadelphia, Pa.

Third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut st., Paterson, N. J. First and last Friday every month, Working Man's Institute, Paterson, N. J.

Philadelphia Florists' Club.

David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

First Tuesday every month, Horticultural Hall, 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa. First Tuesday every month, Fort Pitt Hotel.

Redlanrs (Cal.) Gardeners' Association. Jas. McLaren, secretary, Box 31 R. F. D. No. 2, Redlands, Cal.

Rhode Island Horticultural Society,

E. K. Thomas, secretary, Box 180, Kingston, R. I. Third Wednesday every month, Public Library, Providence, R. I.

Rochester Florists' Association. H. R. Stringer, secretary, 47 Stone street, Rochester, N. Y.

Second Monday every month, 95 Main street, East.

Shelter Island Horticultural and Agricultural Society.

First and third Thursdays every month.

Southampton Horticultural Society. Julius W. King, secretary, Southampton, N. Y.

First Thursday every month, Oddfellows Hall.

Tacoma Florists' Association.

F. H. Atchison, secretary, South 50th and East F street, Tacoma, Wash.
Third Thursday, Maccabee Hall, 11th and C streets.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarrytown, N. Y. Last Tuesday every month, 7:30 p. m.

Texas State Horticultural Society. ·G. H. Blackman, assistant secretary, College Station, Texas.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y. First Wednesday every month.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington, D. C. First Monday every month.

Westchester and Fairfield Horticultural

Society.

J. B. McArdle, secretary, Greenwich, Conn Greenwich, 8 p. m.

## GARDEN CLUBS

International Garden Club. Mrs. Charles Frederick Hoffman, President. Mrs. Charles Frederick Hoffman, President.

Club House, Bartow Mansion, Pelham Bay Mrs. Henry S. Munroe, secretary, 501 W Park, New York City. (Address all communications to Mrs. F. Hammett, Asst. See'y, Bartow Mansion.)

street, Philadelphia, Pa.

The Garden Club of Alma, Mich. Mrs. E. J. Lamb, secretary, 803 State street. Twice a month at members' residences.

The Garden Club of Alleghany County, Pa. Mrs. F. H. Denny, president, Sewickley, Pa.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich. Miss Annie Condon, secretary, 920 University avenue.

The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle, secretary, Gladstone, N. J. Second and fourth Thursdays, middle of

April to November. August excepted.

The Garden Club of Cleveland, Ohio. Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Mrs. F. K. Holister, secretary, East Hamp-ton, N. Y.

The Park Garden Club, of Flushing, N. Y.

Mrs. John W. Paris, president,

Flushing, N. Y.

Second and fourth Mondays, members'

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob, Conn.

At members' residences.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson P. O., Md. First and third Thursdays, April to

December at members' residences.

The Gardeners of Mont. and Dela. Counties,

Miss Elizabeth D. Williams, secretary, Haverford, Pa. At members' residences.

The Weeders' Club, Pa.
Miss Ellen Winsor, secretary, Haverford,
Pa.

First and third Wednesday at members' residences.

The Garden Club of Lake Forest, Ill. Mrs. Tiffany Blake, president, Lake Forest, Î11.

The Larchmont Garden Club, N. Y. Mrs. Edgar Park, secretary, Larchmont, N. Y First Thursdays.

The Garden Club of Lawrence, L. I. Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass. Second Friday every month, Doran's Hall Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York.

First and third Mondays, June to October at Lenox.

Lewiston and Auburn Gardeners' Union. Mrs. George A. Whitney, secretary, Auburn, Me.

120th street, New York.

Second Friday, June to October at Litchfield.

The Garden Club of America.

Mrs. J. Willis Martin, president, 1721 Locust Miss Sarah W. Hendrie, secretary, Grosse

Pointe Farms, Mich. At members' homes. Two Spring and one Fall Shows.

The Millbrook Garden Club, N. Y.

Mrs. Keyes Winter, secretary, 125 E. 78th street, New York. Meet at Millbrook, Dutchess County, N. Y.

The Bedford Garden Club, N. Y.

Mrs. Benjamin W. Morris, secretary, Mt. Kisco, N. Y.

The Garden Club of New Canaan, Conn. Mrs. Francis H. Adriance, secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I. Miss Dorothea G. Watts, secretary, New-

port, R. I.

Annual Meeting, August. Others when called. Five monthly summer shows.

The Newport Garden Club. Mrs. Chas. F. Hoffman, president, 620 Fifth avenue, New York.

The Garden Club of New Rochelle, N. Y. Mrs. Lucius W. Hitchcock, corresponding secretary, Premma Point Park, Members residences and Public Library. Shows monthly, May to November.

The Garden Club of Norfolk, Conn. Philemon W. Johnson, secretary, Norfolk, Conn.

Second Wednesday each month at Public Library.

North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa. Miss Ernestine A. Goodman, secretary, Chestnut Hill.

The Garden Club.

Mrs. Aubrey Pearre, Jr., secretary, Pikesville, Md.

The Garden Club of Princeton, N. J.
Mrs. Junius Spencer Morgan, secretary,
Constitution Hill, Princeton, N. J.

The Garden Club of Ridgefield, Conn. Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York

Twice monthly at Ridgefield. Also exhibitions.

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood, N. J.

Rumsen (N. J.) Garden Club. Miss Alice Kneeland, secretary Rumson, N. J.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md.

The Garden Club of Rye, N. Y. Mrs. Samuel Fuller, secretary, Rye, N. Y. First Tuesdays, April to October. Also special meetings and Flower Shows.

The Shedowa Garden Club, New York. Miss Mary Young, secretary, Garden City, N. Y.

Second Wednesday each month at mem-ers' residences. Vegetable and flower bers' residences. shows, June and September. Correspondence with other clubs invited.

## Shorburn's Bulb Catalogue



Send for vourcopy. Our bulbs are fullsize, true to name and very beautiful.

We have really won derful assortment of 66 of our

choicest bulbs for \$1.00. You may send a dollar bill, pinned to your order, at our risk.

To those who love flowers and "growing things," as all gardeners do, our Bulb Catalogue will be a revelation. Send for it today.

## J. M. Thorburn & Co.

53C Barclay Street, through to 54 Park Place, New York



## Short Hills Garden Club, N. J.

Mrs. C. H. Stout, secretary, Short Hills, N. J. Weekly at Short Hills Club House Flower Shows April and June, and annua Dahlia Show.

The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W. 33rd street, New York.

Twice a month in summer at Southampton, L. I.

The Staten Island Garden Club, N. Y. Mrs. J. Harry Alexander, secretary, Rose-

bank, S. I. Twice a month. At members' homes. Winnetka, Ill.

The Garden Club of Trenton, N. J. Miss Anne MacIlvaine, secretary, Trenton,

N. J. Bi-monthly meetings at members' residences.

The Garden Club of Illinois.

Mrs. William G. Hibbard, Jr., secretary, Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.

Orange County, N. Y.

Warrenton Garden Club, Virginia. Mrs. C. Shirley Carter, secretary, Warrenton, Va.

Garden Club, Webster Groves, Mo. Caroline Chamberlin, see'y., 106 Plant Ave.

## HORTICULTURAL EVENTS

Mr. Young, gardener to Chris. A. Guine:
Mr. Nunn, gardener to Mr. S. Stern: William Kettlewell, gardener to Mrs. Pope.
In the chrysanthemum classes the display was the best ever seen on the Pacific Coast, and among the varieties which attracted the most attention were Odessa, William Three Notes of Steins Not Over 15 Inches Collection of 24 varieties; growers of over 2,500 square feet of glass not eligible Mrs. Payne Whitney, first: D. E. Oppenheimer. Nerisa, Flamingo, Ivy Gay, Sisa wath, Elberon, Mrs. G. Drabble, Mrs. A. S. Watt, Chrysolara, Lady Hopetoun,

#### NEW YORK HORTICULTURAL SOCIETY'S SHOW.

The annual fall exhibition of the Horticultural Society of New York, held in the American Museum of Natural History, New York, November 4 to 7, was the most successful ever held by that society, both in display of magnificent plants and blooms and in number of attendance. Nearly a hundred and ninety-five thousand people viewed the show during the four days it was in progress, while between one and five o'clock on Sunday afternoon more than eighty-eight thousand visitors inspected the show

Superintendent John Canning, of the Adolph Lewisohn Estate Ardsley, N. it would seem, has reached the limit in size of chrysanthemum bush plants, for were he to produce any larger ones they could not enter the building. His largest plant on exhibition this year was nearly seventeen feet in diameter. His standard plants attracted much attention and gave promise of great possibilities in training chrysanthemums

in different shapes.

The collection from Duke's Farm, Somerville, N. J., staged by A. A. Macdonald, gardener, and occupying a space of thirtyfive feet in length by fifteen feet in depth was a most unusual and interesting one. On either side of a fountain, with its nymphs sending the water upward, were Mrs. Morris Rutherford, secretary, Warrick, grouped the various hot house fruits grown at Duke's Farm and exhibition vegetables. Banked behind these groups were chrysanthemums and roses embedded in foliage plants of many varieties. It was a splendid exhibit and was awarded the Society's gold medal, which is its highest prize.

A group of lilacs and spireas in flower, staged by John Scheepers and Co., deserves notice and for which a silver medal

was awarded.

The judges were Walter Angus, John D. Urquhart, Alexander Michie, Robert Walker, James Ballentine and George H. Thompson. The premiums awarded follow:

#### CHRYSANTHI MUMS. PUANTS

Fourth National Flower Show, under the auspices of the Society of American Florists and Ornamental Horticulturists, Philadelphia, Pa., March 25 to April 2, 1916.

International Flower Show, Grand Central Palace, New York, April 5-12, 1916

National Association of Gardeners, vention, Boston, December 9 10, 1915

PANAMA-PACIFIC SHOW.

The national Show of the Panama Paulo International Exposition, held in the Palace of Horticulture, Sam Francisco, October 21 and 22, was pronounced a decided success, it belows a stimulated by the sum of the palace of the panama of the palace of the panama in the pana

at neing estimated that more than two lundred thousand people visited the exhibition during the six days that it lasted. Competition was between commercial oil private growers.

The National Association of G. ideners medal, for which there were seven cutties, calling for six blooms, six varieties, was won by Percy Ellings, of Menlo Park. The other private wigners among the private growers.

Charles Ehrlich, gardener to Mrs. G. Roos; Mr. Young, gardener to Charles.

Charles Ehrlich, gardener to Mrs. G. Roos; Mr. Young, gardener to Charles.

Second. Collection of singles, 24 varieties Mrs. F. A. Constable, first; Arthur N. Cooley, second. Collection of singles, 12 varieties—Adrian Iselin, Jr. (Jos. Tiernan, gardener), first; Arthur N. Cooley, second. Collection of pompons.

12 varieties Frederick Sturgts (Thos Bell, gardener), first; Adrian Iselin, Jr., second, Binner table decoration, chrysanthemum flowers only Adolph Lewisolm, first; Mrs. Payne Whitney, second, Mrs. Paulin, Boettger, 6466.

#### Rusis.

Reses.

Twelve American Beauty J. B. Duke (A. A. Macdonald, gardener), first, Samuer Untermyer, second. Eighteen von Samuel Untermyer, first. Eighteen ware Henry C. Sturges of Emy Kulberg, gardener), first. Arthur N. Cooley, second. Eighteen pink J. B. Duke, first, Samuel Intermyer, second. Lighteen any other color J. B. Duke, first Samuel Lighteen any other color J. B. Duke, first, Henry C. Sturges, second. Vase of 50, assorted, arranged for effect Henry C. Sturges, nest, Mrs. Paulin Boottget, second.

Eighteen white—Jas. A. Macdonald (R. Hughes, gardener), first; Mrs. Payne Whitney, second. Eighteen Enchantress shade Jas. A. Macdonald, first; Mrs. Payne Whitney, second. Eighteen Lawson shade Jas. Whicedonald, first; Arthur N. Cooley, second. Eighteen searlet Jas. A. Macdonald, first; Henry C. Sturges, second. Eighteen et a. on Henry C. Sturges, nerst. Lighteen et a. on Henry C. Sturges, first;

#### FOLIAGE AND DECORATIVE PLANTS

FOUNCE AND DEORYMAI PLAYES

Three plants begonias Adolph Lewisolm,
hrst. Specimen Areca Intescens Mrs. P. A.
Constable, first. Specimen Hewea Forsteriana
—Mrs. F. A. Constable, first, Mrs. Pauline
Boettger, second. Specimen Rhapis flabelliformis Mrs. F. A. Constable, first, Specimen any
other palm—Mrs. F. A. Constable, first, Mrs.
Pauline Boettger, second. Specimen Gibotium
Schiedei Mrs. P. A. Constable, hrst. Mrs.
Pauline Boettger, second Specimen Nephro
Lepts exalta Bostoniansis Mrs. Pauline Boett
ger, first. ger, first.

#### ORCHIDS, PLANI

Collection Geo, Schlegel (8, G. Milosy, gardener), first. Six plants, not less than 3 varieties Geo, Schlegel, first. Three plants, ivarieties—Geo, Schlegel, first. Six Cypripe diums, not less than 3 varieties Geo, Schlegel first. Phisplay of Laclio-cattleyas, Brasso cattleyas, etc.—Clement Moore, first. A plant in this display, Brasso cattleya Maronae su perba, won the Sweepstakes Prize for the best orchid plant shown.

#### AMERICAN INSTITUTE SHOW.

The annual show of the American Insti tute, New York City, opened on Wednesday. November 3.

The exhibits of cut blooms of Chrysan themums, Roses and Carnations were of excellent quality. There was also a display of bush and standard grown Mums, and plants of the latter as single-stemmed speci mens in pots. In addition, there was a display of Begonia plants.

The exhibits of vegetables and fruit

formed an interesting display.

The judges were E. Dailledouze, Peter Duff, Wm. Turner, Geo. Middleton, Alex MacKenzie and J. G. McNicoll - The man ager was W. C. Rickards, Jr.

Among the list of promunent prize win

Among the list of promunent prize win ners wete:

Walter Havies 2, idence to Mrs. Lines Fompson. Woodners L. J. Honna Bell, gardener to Frederick Sturges, Fairfield, Conn.; W. G. Carter, gardener to J. W. Harriman, Bernardsville, N. J.; Rudolf Heidskamp, gardener to Mrs. Pembre Bottes Revertate on Hudson, N. Y.; P. W. Popp Laderer to Mrs. Henry Darlington, Mamaroneck, N. Y.; Ernest Robinson, gardener to Mrs. M. F. Plant, Groton, Conn.; William Vert, gardener to Howard Gould, Port Washington, L. I.; Frederick Hitch man, gardener to Ralph Pulitzer, Manhasset L. I.; Wm. F. Gordon, gardener to Samuel Literaver, Youker N. Y.; & William Cameron, gardener to Thos, N. Mc Carter, Rumson, N. J.; L. G. Forbes, gardener to Mrs. Payne Whitney, Manhasset, L. L.; James Bell, gardener to C. K. G. Billings, Oyster Bay, L. I.; William J. Sealey, gardener to Unif., gardener to Mrs. Crosby Brown, Orange, N. J.; Robert Petrie, gardener to Dr. D. T., Millspangh, Paterson, N. J.; James McDonald, gardener to Mrs. J. H. Ottley, Glen Cove, L. I.; Richard Thomas, gardener to H. F. Guggen heim, great Neck, L. I.; A. MacDonald, gardener to D. E. Oppenheimer, Youkers N. Y.

be given by the Country Life Permanent nounced a decided success and the silver

## SILVERSterling & Plate



## Silver-Plated Compotiers In Many Beautiful Designs

The artistic piece illustrated is  $5\frac{3}{4}$  inches high and the diameter at the top is 914 inches. Made of Nickel Silver, heavily plated, in a richly cut-out pattern, making a most effective gift, as well as providing a desirable selection for the purchaser's own table.

This Compotier is just one representative example among scores of beautiful new and classic designs shown at the INTERNATIONAL Store. An equally broad variety of Compotiers in Sterling Silver also on display.

Whether it is an artistic gift, simple or elaborate, or practical pieces of Silver for the home, the International Silver Company's stocks are always broadest and most interesting.

You are invited to visit the store at your convenience, to look over the exhibition, regardless of whether you have a purchase to make at the time or not.

## International Silver Company

Succeeding The MERIDEN Co. Established 1852

49-51 West 34th St., through to 68-70 West 35th St., New York

Exposition was held in the headquarters of trophics, all of which were of a practical that institution, New York on

1 .0812. The exhibition was aximately one of chrysanthenums, in which there were ten classes. Probably the most interesting of the exhibits were the table securitions for which there were ten entries. The settings tor the tables were supplied by the Hotel Biltimore and the Grand Central Pestanout and this teature of the show made a splen-

did display. In connection with the show, Charles H. Totty, of Madison, N. J., lectured on the afternoon of the first day on "Hardy Chrysanthemmus." The lecture was well at COUNTRY LIFE EXPOSITION SHOW.

The first show of a series of shows to fessional gardeners. The show was pro-

Nevember mature, were highly pleasing to the prize

It is planned to hold a Rose and Carnation show during the latter part of Janu-The following is the list of prize winners:

The list of awards follows:

The list of awards follows:

An of large flow (ing carysant an on 12 flowers, any variety First, Miss M. T. Cockeroft, Saugatuck, Conn. (A. Paterson, gardene): second, Henry to dman, F.q. Deal Reach, N. J. Ca. Bauer, gardener): special, Mrs. M. F. Plant, "Branford Farms," Groton, Conn. (Linest Rodinson gardin: Vase of large flowering chrysanthennums, 6 flowers, any variety First, Samuel Untermyer, Esq. "Greystone," Yonkers, N. Y. (O. E. Plaisted, gardener): second, Mrs. M. F. Plant, Beantord Farms," Groton Conn. Ernest Robinson, gardener).

Vase of large flowering chrysanthennums, 3 flowers, any variety First, Mrs. M. F. Plant,

Branford Farms, Groton, Coun. (Ernest Robinson, Gardener; second, Mrs. Payne Whit-ney, Manhasset, L. I.

Robinson, Gardener; second, Mrs. Payne Whitney, Manhasset, L. I.
Six vases single thrysanthemams, 6 varieties, 6 sprays to vase First, Estate of Joan Downey, Esq., Portchester, N. Y. (Thomas Ryan, gardener); second, John T. Pratt, Esq., Glen Cove, L. I. (J. W. Everitt, gardener).
Three vases single chrysanthemams, 3 varieties, 6 sprays to vase—First, John T. Pratt, Esq., Glen Cove, L. I. (J. W. Everitt, gardener); second, George D. Pratt, Esq., Glen Cove, L. I. (J. W. Everitt, gardener); second, George D. Pratt, Esq., Glen Cove, L. I. (John F. Johnston, gardener).
Six vases Pompoms, 6 varieties, 6 sprays to vase—First prize, Chas, Mallory, Esq., Port Chester, N. Y. (Wm. J. Sealey, gardener); second, Miss M. T. Cockeroft, Saugatuck, Conn. (A. Paterson, gardener).
Three vases Pompoms, 3 varieties, 6 sprays to vase—First, Chas, Mallory, Esq., Port Chester, N. Y. (Wm. J. Sealey, gardener); second, Henry Goldman, Esq., Deal Beach, N. J. (A. Bauer, gardener).

second, Henry Goldman, Esq., Deal Beach, N. J. (A. Bauer, gardener).

Twelve chrysanthemums, 12 distinct varieties, stem not to exceed 12 inches, to be shown in single vase—First, Miss M. T. Cockcroft, Saugatuck, Conn. (A. Paterson, gardener); second, Geo. D. Pratt, Esq., Glen Cove, L. I. John F. Johnston, gardener.

Table Decoration of Chrysanthemums for six covers First, Mrs. Chas. Bradley, Convent Station, N. J. (David Francis, gardener); second, Mrs. Pauline Roedlger, Riverdale on Hudson, N. Y. (Rudolph Heidkamp, gardener); special, Mrs. Ridley Watts, Morristown, N. J. (S. Goldma, gardener).

#### THE BOSTON AUTUMN SHOW.

The November Show of the Massachusetts Horticultural Society has ceased to be called a "Chrysanthenaum Exhabit," as the "Queen of Autumn" fails to attract people as it did a decade ago. Big blocms and specimen plants had their inception in Massachusetts but have steadily declined in favor of late years, more particularly the big blooms, but plants of more moderate size undisbudded were largely shown, the singles, anemones and pompons having largely displaced the big varieties in favor. Orchids, begonias, carnations, roses, fruits, vegetables and hardy evergreens were all better than ever before seen here at a Fall Show, and table, mantel and other decorations were numerous. Such an exhibition attracts the general public far more than one of chrysanthemums only.

In the cut chrysanthemum classes the lead-

In the cut chrysanthemum classes the leading prize winners were: D. F. Roy, gardener to H. E. Converse; E. H. Wetterlow, gardener to Mrs. Ledand; James Nicol, F. J. Dolansky, W. W. Edgar Company, and W. I. Russell.
D. F. Roy's blooms were very fine; his winning twenty five were: Meudon, Cheltoni, His Majesty, Wm. Meade, James Fraser, Wm. Turner, Madison, W. Woodmason, Marquise de Venosta, Mrs. Foote, Earl Kitchener, D. B. Crane, Adele Griswold, F. S. Vallis, Mrs. G. Drabble, H. F. Converse, G. Hemming, Nerissa, Elberon, Nagoya, Pockett's Crimson and Poughkeepsie.

Rectisic.

For specimen trained chrysanthemums William Watson won for six plants. For single specimens of the several color prizes chiefly went to this exhibitor, W. C. Rust, gardener to Miss C. S. Weld, A. M. Davenport, and G. L. Stone (A. E. Griffin, superintendent). The last named captured the silver medal for the finest plant in the show with a fine specimen. E. H. Wetterlow had the twelve best specimens of single flowered varieties. F. P. Putnam took first in class for cut pompons, anemone and singles with grand collections.

William Thatcher, gardener to Mrs. J. L. Gardner, won first for a two hundred-toot cir-

anemone and singles with grand collections.

William Thatcher, gardener to Mrs. J. L. Gardner, won first for a two hundred-root circular group of chrysanthenums and foliage plants. For the one hundred and fifty-foot group of flowering plants he used white and colored speciosum lilies largely.

Orchids were grandly shown. Donald Mc-Kenzie, gardener to E. B. Dane, and J. L. Smith, gardener to A. W. Preston each secured a first class certificate for Cartleya Mariae. Henry Stewart, gardener to Miss C. Warren, showed a grand cancidium Rogersi, several of the spikes carrying 250 flowers each. Geo. F. Stewart, gardener to Mrs. I. C. Lawrence, had a finely flowered Cattleya Trianaci, an extra early type.

numerously shown, Begonias were numerously shown, W. C. Rust winning, half dozen Loraines were four feet across. A. M. Davenport was first with six beautiful plants of the brilliant Mrs. Heal begonia, William Downs, gardener to E. S. Webster, showed Mrs. Heal begonias a yard across; he also secured a first class certificate for begonia optima a fine orange colored variety.

Table and mantel decorations brought out a new competition each day, nearly all the lead-ing Boston retailers competing. For the best table of a private gardener Duncan Fit gardener to L. Anderson, was first and Thatcher second. gardener Duncan Finlayson,

Thatcher second,
Fruits were largely shown and of splendid quality while finer vegetables were never seen at a fall show here.
For 12 varieties there was a strong entry. Edward Parker, gardener to Oliver Ames, woo with Paris golden celery, New York egg plant, pure culture mushrooms, Sutton's Exhibition Russes, Speaker, Speake pure curture musirooms, Sutton's Exhibition Brussels Sprouts, Snowball cauliflower, Dan-ver's improved carrots, Chinese Giant peppers, Ailsa Craig onion, hollow crown parsnip, May lettuce. White Spine cucumber, Lister's Prolific tomato.

The show was beautifully arranged, and the attendance, especially on the closing days. was record breaking.

#### THE LENOX (MASS.) SHOW.

The fifteenth annual Flower Show of the Lenox (Mass.) Horticultural Society, was held in the Town Hall on October 26 and 27 Although the number of exhibitors was less than in the previous two or three years, the hall was well filled and all the exhibits were of the highest class and very tastefully arranged: In the center was a large circular group of miscellaneous plants for effect slown by Grand Foster egrd., E. Jenkins. One of the lealing features of the show was the magnificent group of orclads exhibited by A. N. Cooley, of Pittsfield (orchid grower, Oliver Lines)

Cut Chrysanthenums were well shown, the winners in the leading classes being Giraud Foster who won the society's cup for the best vase of 10 blooms with the variety Mrs. G. L Wiggs. A silver cup offered by W. H. Walker, Great Barrington, for the best six blooms in the show was won by Mr. Cooley. Roses and Carnations were well shown, the winners in Roses being F. E. Lewis, Ridgefield, Conn. (gdr., W. Smith); C. Lanier and G. Foster.

In Carnations, Mrs. Griswold and Mrs. R. Winthrop were the winners in the leading There was the usual keen competiclasses. tion in the vegetable classes, G. Foster winning the special prize offered by Mrs. W. E. S. Griswold for the best collection of 18 kinds by the narrow margin of  $1\frac{1}{2}$  points. Carlos de Heredia (gdr., G. H. Thompson), was placed second. Both exhibits were of a very high class. For 12 varieties, one point separated the collection from Mrs. R. Winthrop (gdr., S. Carlquist), and C. Lanier (gdr., A. H. Wingett), in the latter's favor. This prize carried with it the silver cup offered by R. &. J. Farquhar & Co. The special prize offered by Peter Henderson & Co. for the best 10 varieties of Potatoes was won by C. Lanier. There was a good show of fruit. Lord & Burnham Co.'s prize for 12 dishes of Apples, distinct, was won by A. Swift, of W. M. Salisbury, of Pittsfield, won the silver cup offered by Hitchings & Co. for the best two bunches of Grapes.

There was a good attendance on both days A vote of thanks is due to all exhibitors and the committee of arrangements who helped to make the event a success.

J. FROMPTON, Asst. Secretary.

#### THE MADISON (N. J.) SHOW.

The twentieth annual flower show of the Morris County Gardeners' and Florists' Society opened at Madison, N. J., October 28 This society holds a record for its long, uninterrupted series of flower shows and they have now progressed to a point where they are considered the society event of the county: consequently the attendance is notably large and yet exclusive, as Madison

W. C. Rust and C. D. Sias won in the private gardeners' carnation class. Carnations were of superb quality as shown in the commercial airce.

The awards were as follows:

Thirty-six flowers, six varieties, six of each-

Thirty-six flowers, six varieties, six of each—First, Wm. Duckham, superintendent for Mrs. D. Willis James, Madison, N. J.
Eighteen flowers, six varieties, three of each—First, Ernest Wild, superintendent for C. W. Harkness, Madison, N. J.; second, Jas. Fraser, superintendent of the O. H. Kahn estate, Morristown, N. J.
Twelve howers, twelve varieties, in one vase

superintendent of the O. H. Kahn estate, Morristown, N. J.
Twelve howers, twelve varieties, in one vase First, John Downing, superintendent for Dr. McAlpin, Morris Plains, N. J.; second, Jas. Fraser; third, Peter Duff, superintendent for Mrs. J. Crosby Brown, Orange, N. J.
Twenty-four flowers, twenty-four distinct varieties, stem not to exceed twelve inches, to be shown in single vases. First, Wm. Duckham.
Twelve flowers, three varieties, four of each, in three vases, stems twenty-four inches—First, Ernest Wild; second, Jas. Fraser.
Twelve flowers, twelve distinct varieties, stems not to exceed twelve inches, in single vases, was won by James Fraser; second, John Lowning; third, Robt, Tyson, superintendent for Mrs. H. McK. Twombley, Convent, N. J.
Six flowers, six distinct varieties; stems not to exceed twelve inches, in single vases—First, Peter Duff; second, W. G. Carter, superintendent at the J. W. Harriman estate, Bernardsville, N. J.; third, Fred Huyler, superintendent at Hamilton Farms, Gladstone, N. J.
Six flowers, six varieties, 1914 introduction, 12-inch stems, single vases—First, Ernest Wild.
Six flowers, any pink variety—First, Jas.

Wild,
Six flowers, any white variety—First, Jas,
Fraser; second, A Sailer, superintendent for J.
Gordon Douglas, Morristown, N. J.
Six flowers, any yellow variety—First, Geo.

Gordon Douglas, Morristown, N. J.
Six flowers, any yellow variety—First, Geo.
Fisher, superintendent for Morris Kinney, Butler, N. J.; second, Jas. Fraser.
Six flowers, any crimson variety—First, John
Downing; second, Jas. Fraser.
Six flowers, any other color -First, Jas.
Fraser; second, Geo. Fisher.
Twelve White Killarney—First, Fred. Huyler.
Twelve any other pink rose—First, Fred.
Huyler.
Huyler.

Huyler.
Twelve any other yellow rose—Second, Fred.

Huyler,
Twenty-five blooms crimson carnations—
First, Wm. Duckham.
Twenty-five blooms light pink—First, Ernest
Wild; second, Wm. Duckham,
Twenty-five blooms dark pink—First, Ernest

Twenty-five blooms white—First, A. Sailer, Twenty-five blooms red First, Wm. Duckham.

Twenty-five blooms variegated -First, Ernest

Wild.
Twelve blooms light pink—First, Geo, Fisher; second, Frank Brear, superintendent for J. B. Dickson, Morristown, N. J.
Twelve blooms dark pink—First, Frank Brear,
Twelve blooms white First, Fred. Huyler; second, Jas. Fraser,
Twelve blooms red—First, Fred Huyler,
Twelve blooms variegated—First, Frank

Brear.
Three vases Carnations, three varieties, eighteen blooms each -First. Ernest Wild.
Chrysanthemum plants in flower, arranged with foliage plants for effect, on a space not exceeding fifty square feet—First, Robt. Tyson; second, John Downing.
One specimen chrysanthemum plant in flower, in pot or tub, any color—First, Peter Duff; second, W. J. Carter.

In the vegetable classes the first prize was won by Robert Tyson; second, by James Fraser, in a class calling for collection of vegetables, twelve distinct kinds, arrangement to count. James Fraser scored first in the class calling for six kinds, and won numerous prizes in the individual vegetable classes. Other prize winners in this section were Thos. Dorner, superintendent for Mrs. A. H. Tiers, Morristown, N. J., and Louis Barkman, of Morristown.

The principal prize-winners for exhibits fruits were: S. M. Post, of Bernardsville, N. J.: John Downing: Wm. Reid, superintendent for S. M. & A. Colgate, and Jas. Lindabury, superintendent for R. D. Foot, Morristown, N. J.

The stage was decorated, as in former years, by Chas. H Totty. This year the decorations consisted of seventy or more varieties of single mums, pompons, the well known Caprice mums and autumn foliage.

The first prize in the table decorations went to D. Golding, superintendent for Mrs.

Ridley Watts, Morristown, N. J.; second, Wm. Duckham; third, David Francis, super intendent for Mrs. Chas. Bradley, Convent.

X. J.
The judges were as follows: Eugene Dailledouze, Brooklyn, N. Y.; Frank Witney, Fishkill, N. Y.; Harold Vyse, Devon. Pa.: Peter Duff, Orange, N. J.; Wm. Tur ner, Bernardsville, N. J., and Wm. Brock, Tuxedo, N. Y.

#### TARRYTOWN (N. Y.) FLOWER SHOW.

The seventeenth annual flower show of the Tarrytown (N. Y.) Horticultural So-ciety was held in Tarrytown, November 3 to 5 inclusive.

The principal exhibitors were Finley J. Shepard, Joseph Eastman, Ennl Berolzheimer, Mrs. F. E. Lewis, William B. Thompson, Adolph Lewison, Mrs. S. Hermann, David L. Luke, Mrs. S. Neustadt, Hugh Hill, Mrs. I. N. Seligman, Richard Delafield, Paul M. Warburg, etc.

The society's silver medal was awarded to Finley J. Shepard in class 1, tor seedling Croton Roxbury. Certificate of merit was awarded to Mis. A. McEwen for an exhibit of standard seedling single chrysanthemums; also certificate of merit to Jacob Ruppert for six standard chrysanthemums Miss Cornelia A. Ruppert. Cultural certificate was awarded to Finley J. Shepard for Phoœnix Roebelenii.

The judges for the first day were John T. New Canaan, Conn.; Ewen Macken-Burns, zie and N. Butterbach, New Rochelle, N. Y. Second day, W. H. Waite, Rumson, N. J.: Second day, W. H. Waite, Rumson, N. J.; James MacMahon, Tuxedo Park, N. Y.; Her-bert H. Fletcher, Millbrook, N. Y. Third day, Joseph Bradley, Dobbs Ferry, N. Y.; Joseph Mooney, Hastings, N. Y., and John Featherstone, North Tarrytown, N. Y. E. W. N.

#### THE TUXEDO (N. Y.) SHOW.

The Tuxedo Horticultural Society's An nual Fall Show was held in the Tuxedo Club House on November 5th, 6th and 7th, 1915, and proved to be the finest ever held in Tuxedo. Great credit is due to the Man ager, Mr. Fred Bentley, for the splendid manner in which he planned the floor. The exhibits were up to the usual high standard and the entries were larger than in former years. The groups were again the main feature of the show: Mums, Roses and Car nations were very good. The trade exhib its were as follows:

Collection of Single and Pompom Mums and Roses, including the new Rose Red Redience, which were very fine and much admired, from Messrs. A. N. Pierson, Inc. Cromwell.

Collection of Single and Hardy Mums. including some very good things from Scott Bros., Elmsford.

An exhibit of the fern "John Wana maker" from C. A. Peterson, Tarrytown. Collection of Japanese and Pompom Mums from Elmer G. Smith.

There was a very interesting and attrac tive exhibit of Seedling Annemone Mums from Mr. Carl D. Schaeffer, superintendent of the Richard Mortimer Estate. Mr. Schaeffer has worked hard in trying to im prove the Annemone type, and by the qual ity of his exhibit, his efforts have not been in vain. The judges awarded them a Certificate of Merit.

Mr. H. M Tilford (Joseph Tansey, gardener) won the 18 distinct Mums with the following varieties:

R. C. Pulling, Mrs. Wm. Tricker, Mrs. J. P. Mitchell, Rose Pockitt, Mrs. G. Drabble, Pocketts Crimson, Kawanee, Ernest Wild, Mrs. Bogg, Wm. Kleinheinz, Mrs. W. H. Walker, F. S. Vallis, Kate Ainsley, A. Gris



wold, Earl Kitchener, Elberon, Mrs. Surrey, Nakota.

Mrs. J. Murray Mitchell (Thos. Wilson, gardener) won the twelve distinct varieties with the following: Lady Hopetown, R. C. Pulling, Rose Pockett, Calumet, Elberon, Mrs. J. P. Mitchell, Jas. Fraser, Odessa, F. S. Vallis, H. E. Converse, Alganoc. Xarossin

Mr. David Wagstaff (Thos. Lyons, gardener) won the six distinct varieties with: James Fraser, Wm. Turner, Elberon, Men

don, Mrs. Bogg, Mrs. G. Drabble. Mr. Wagstaff's "Mrs. G. Drabble" winning the prize for the largest bloom in the Show.

The judges were Mr. A. Herrington, Mad Thos. Page, Great Barrington ison; Mr. Mass; and Mr. Alex. Mac Kenzie, Highland A, whose judgment was well to

Special group of plants. Unit. Mr. H. M. Tilford (closeph Taussy, gardener), so ord. Mr. Goo, P. Baker (James MacMachon, gardener). Group of Muns. First, Mr. G. G. Misson

(I) MacGregor, gardener); second, Mr. H. M.

Group of terns First, Mr. A. Monell (C Davidson, gardener); second, Mr. Geo. F. Baker, Six tolinge plants. First, Mr. G. F. Baker; second, Mr. C. B. McAander (Wm. Hastings, gardener).

second, Mr. C. B. McAinder (Win, Hastings, gardener).
Three Begonias Lorraine First, Mrs. J. Morray Mitchell (Thos, Wilson, gardener).
second, Mr. H. M. Tillord

Fire tubs of Cosmos - First, Mr. D. Wagstaff cond, Mrs. Samuel Spencer (Emile Barth

scond, Mrs. Samuel Spencer transe parrogardener).
Three pans of Lily of the Valley Tirst, Mrs. J. Murray Mitchell; second, Mr. R. Delaheld (Wm. Brock, gardener).
Best standard Mum. First, Mrs. A. S. Carliart (C. Costecki, gardener).
Best bush Mum. (pink). Lirst, Mrs. A. S. Carliart (C. Costecki, gardener).

st loish Mum (white | Lirst, Mrs. A. S.

Best bush Mum (white Tirst, Mrs. A. S. Carhart, Twelve Mums in Grich pots First, Mr. H. Tilford, second, Mr. Pavid Wagstaff, Sx Mums in Grich pots Tirst, Mr. H. M. Tilford, second, Mrs. A. S. Carhart, Eighteen Mums, distinct varieties. First, Mr. H. M. Tilford; second, Mr. G. G. Mason, Twelve Mums, distinct varieties. First, Mrs. J., M. Mitchell; second, Mr. A. Seton (P. Cassidy, gardener).

Six Mums (yellow) First, Mr. H. M. Tilforrd; second, Mr. C. B. Alexander
Six Mums (white) First, Mr. G. G. Mason; second, Mr. G. F. Baker,
Six Mums (bronze) First, Mr. R. Mortimer; second, Mr. G. G. Mason,
Six Mums (pink) First, Mr. C. B. Alexander; second, Mr. H. M. Tilford,
Six Mums (crimson)—First, Mr. G. G. Mason; second, Mr. H. M. Tilford,
Six Mums (red) First, Mr. G. G. Mason; second, Mr. H. M. Tilford,
Twelve Mums (frame grown)—First, Mr. A.

Twelve Mums (frame grown)

Seton; second, Mr. D. Wagstaff,
Twelve Mums (frame grown)

First, Mr. A.

First, Mr. A.

Twelve Mums (frame grown)

Spencer.
Vase of 25 Mums—First, Mr. G. G. Mason; second, Mr. C. B. Alexander.

Lighteen pink roses—First, Mr. G. G. Mason; second, Mr. C. B. Alexander.

Eighteen white roses First, Mr. G. G. Mason; second, Mr. R. Belafield,

Lighteen yellow roses—First, Mr. H. M. Tilford; second, Mr. G. G. Mason.

Eighteen yellow roses—First, Mr. H. M. Tilford; second, Mr. G. G. Mason.

ford; second, Mr. G. G. Mason.

Eighteen red roses - First, Mr. H. M. Tilford; second, Mr. R. Delafield.

Eighteen roses (any color) - First, Mr. H. M. Tilford; second, Mr. G. G. Mason.

Eighteen white carnations - First, Mr. H. M. Tilford; second, Mr. R. Delafield.

Eighteen red carnations - First, Mr. H. M. Tilford; second, Mr. R. Delafield.

Eighteen light pink carnations First, Mr. H. M. Tilford; second, Mr. R. Delafield.

Eighteen dark pink carnations First, Mr. H. M. Tilford; second, Mr. R. Delafield.

Eighteen variegated carnations—First, Mr. H. M. Tilford; second, Mr. R. Delafield.

Eighteen carnations (any color) First, Mr. H. M. Tilford; second, Mr. R. Delafield.

Collection of vegetables First, Mr. S. Spencer.

Collection of 12 vegetables First, Mr. G. G. Mason; second, Mr. H. H. Rogers.
Table decoration First, Mr. J. L. Blair (D. S. Miller, gardenet); second, Mr. D. Wagstaff Table centerpiece First, Neil MacMillan;

Table centerpoors second, Alex. Roy.
Table of plants | First, Mr | G | F. | Baker ;
second, Mr, C. | B. | Alexander,
THOS. | WILSON, | Secretary

## GLEN COVE (N. Y.) SHOW.

The eleventh annual chrysanthemum exhibition of the Nassau County Horticultural Society was held at Glen Cove, October 28 and 29. Owing to the lateness of the season the different classes were not quite so well filled as in former years, but what was lacking in quantity was made up for in quality. The judges were Messrs. Alex McKenzie, James Stewart and James

Following is a list of the different classes and the successful exhibitors:

Following is a list of the different classes and the successful exhibitors:

Group of chrysanthemums, 60 square teet 1st. Percy Chubb (gardener, R. Jones). Best standard double (plant) 1st. Mrs. J. H. Ottley (gardener, J. McDonald); 2nd. Mrs. G. D. Pratt (gardener, J. F. Johnston). Best standard single 1st. Mrs. G. D. Pratt; 2nd. E. W. Kimball (gardener, J. McDonald); 2nd. Mrs. G. D. Pratt; 2nd. E. W. Kimball (gardener, J. McCarthy). Best bush double 1st. J. R. De Lamar (gardener, R. Marshall; 2nd. Percy Chubb. Best bush single 1st. E. W. Kimball; 2nd. Percy Chubb. Six chrysanthemums in 6 inch pots -1st. Percy Chubb; 2nd. W. R. Coe (gardener, J. Robinson). Ont Blooms-Six varieties, 3 blooms of each, long stems 1st. Percy Chubb. Eight blooms, 1 variety long stems 1st. E. W. Kimball; 2nd. Ralph Pulitzer (gardener, F. Hitchman). Six blooms, 6 varieties long stems—1st. Percy Chubb; 2nd. Ralph Pulitzer, Six blooms, 6 varieties short stems 1st. E. W. Kimball; 2nd. Ralph Pulitzer, Twelve blooms, 12 varieties 1st, Percy Chubb; 2nd. Payne Whitney (gardener, G. Ferguson). Three varieties, 3 blooms of each—1st. Ralph Pulitzer; 2nd. Mrs. J. H. Ottley. Twelve blooms arranged for effect—1st. Percy Chubb; 2nd. Ralph Pulitzer; 2nd. Mrs. J. H. Ottley. Twelve blooms arranged for effect—1st. Percy Chubb; 2nd. Ralph Pulitzer. Six blooms, crimson list, Percy Chubb; 2nd. E. W. Kimball. Six blooms, pink—1st, J. R. De Lamar; 2nd. Mrs. S. D. Brewster (gardener, H. Goodband). Six blooms, vellow 1st, J. R. De Lamar; 2nd. Ralph Pulitzer; 2nd. Mrs. S. D. Brewster, Fifty varieties hardy chrysanthemums—1st. Mrs. H. L. Pratt (gardener, H. Gaut). Eighteen varieties bardy chrysanthemums—1st. Mrs. H. L. Pratt; 2nd, Payne Whitney. Six vases single or anemone—1st, Mrs. S. D. Brewster, Test display of outdoor roses 1st, J. T. Pratt (gardener, J. W. Everitt); 2nd, Harvey S. Ladew (gardener, J. Adler). Vase of 12 American Beauty Roses 1st. Mrs. F. S.

Smithers (gardener, V. Cleves). Twelve roses, yellow 1st, J. R. De Lamar; 2nd, W. R. Coe. Twelve roses, white—1st, Mrs. J. H. Ottley, Twelve roses, pink 1st, Mrs. Beard (gardener, H. Miller); 2nd, Percy Chubb; Twelve roses, red—1st, Percy Chubb; 2nd, J. R. De Lamar, Twelve T. or H. T. roses—1st, Percy Chubb; 2nd, Mrs. F. S. Smithers, One hundred single violets—1st, Mrs. C. F. Cartledge (gardener, W. Noonin). Fifty single violets—1st, J. B. Taylor (gardener, Gardener, Gardener, Gardener, Gardener, Gardener, Collection of 12 kinds of vegetables—1st, W. R. Coe; 2nd, Mrs. H. L. Pratt. Six kinds

Collection of 12 kinds of vegetables—1st, W. R. Coe; 2nd, Mrs. H. L. Pratt. Six kinds of vegetables—1st, Mrs. S. D. Brewster; 2nd, Ottlev.

Group of flowering and foliage plants 60 square feet. 1st, J. R. De Lamar, 2nd Percy

JAMES GLADSTONE, Cor. Seev.

#### MOUNT KISCO'S N. Y. FALL SHOW.

The thirteenth annual show of the North Westchester County Horticultural and Agricultural Society was held in Mt. Kisco, N. Y., October 29 to 31 and was in all respects equal to any show of former years both in quality and quantity. Competition was very keen in chrysanthemums, roses and carnations. The society's special cup brought out some magnificent blooms of chrysanthemums, there being three very close competitions in this class.

The judges were Adam Paterson, A. T. Brill, and William Jannison.

Summary of chief events tollow:

Best 12 dry anthoniums, 6 varieties E Mayer, Jr., 1st (Chas Rinthen, gardener), E Bayer, 2nd (A. Rose, gardener); Mrs. No stadt, 3rd (David Gordon, gardener), society

stadt, 3rd (David Gordon, gardener), society silver cup.

Best collection, cut singles Mrs. Mayer, 1st; M. J. O'Brien, 2nd; Mrs. Taylor, 3rd (Alex. Thomson, gardener).

Best collection, 12 blooms chrysanthemums. 6 varieties (society's silver cup) -E. Bayer, 1st; E. Meyer, 2nd; Mrs. Neustadt, 3rd.

Best 12 pink roses E. Bayer, 1st; Mrs. Neu-tack 2nd; Mrs. Neustadt.

stadt, 2nd. Best 12 red roses E. Bayer, 1st; Mrs. Tay

2nd. Best 12 white roses E. Bayer, 1st; Mrs.

Best 12 white roses E. Bayer, 1st; Mrs. Roustadt, 2nd.
Best 12 red carnations E. Bayer, 1st; Mrs. Taylor, 2nd.
Best 12 white carnations E. Bayer, 1st; Mrs. Taylor, 2nd.
Best 12 light pink carnations E. Bayer, 1st;

Best 12 light pink carnations E. Bayer, 1st; Spanus, 2nd.
Best 3 begonias (E. Bayer, 1st; John Mayer, 2nd (Jas. Aitchison, gardener).
Collection orchids (H. A. Spanus 1st) 12 distinct varieties apples—A. W. Butler, 1st (John Hall, superintendent); Mrs. Taylor, 2nd; Chas. Brown, 3rd.
15 distinct varieties vegetables (Mrs. Taylor, 1st; E. Meyer, 2nd; Wm. Sloane, 3rd (Ed. Cullam, gardener).
12 distinct varieties vegetables (Wm. Sloane, 2nd (Ed. Cullam, gardener).

thiam, gardener).

12 distinct varieties vegetables. Wm. Sloane.
1st; Mrs. Taylor, 2nd; E. Meyer, 3rd.
8 distinct varieties vegetables. -J. H. Ham-

8 distinct varieties vegetables -J. H. Hammond, 1st (John Connolly, gardener).
Collection farm produce—A. W. Butler, 1st;
Mrs. Taylor, 2nd; J. H. Hammond, 3rd.
8 chrysanthemum plants, 6 inch pots E.
Meyer, 1st.
Largest chrysanthemum bloom in show E.

Largest viagos...
Bayer, 1st.
Best dinner table decoration, four persons
E. Bayer, 1st (Chas. Scott, assistant gardener);
Mrs. Taylor, 2nd.
M. J. O'BRIEN, Secretary

#### NEW LONDON (CONN.) SHOW.

The Chrysanthemum and Fruit Show of the New London Horti ultural Society was held in the basement of City Court House. November 3 and 4. The exhibition was voted the best and most successful in the history of the Society. Among the non-contestant exhibits was a huge bank of potted Single Chrysanthemums, arranged by the Harkness Estate. In the centre of the hall two groups stood out arranged and exhibited from Branford Farms, Ernest Robinson gardener and the Guthrie Estate, John Maloney gardener.

In the class for twelve Chrysanthemum blooms of any variety staged singly Stanley prize in the chrysanthemum cut bloom

Twelve 2nd, W. 1 Twelve 2nd, W. 1 Twelve 2nd, W. 1 Twelve 2nd, W. 1 Twelve 2nd, W. 1 Twelve 2nd, J. 2n Farms second.
In the classes for vases of four blooms,

In the classes for vases of four brooms, strain-cighteen to twenty-four inches, of Crimson, Yellow, Pink, Bronze and White, Branford Farms won first in the Pink and White, Hark-ness Estate first in Crimson, and the Palmer Estate first in Yellow and Bronze. In the class for Carnations Harkness Estate won first

In the on first.

The vegetable class brought out only two exhibitions, Stanley Jorden winning one, Alfred Flower the other.

Among Bush Plants and Specimens the hon-

Among Bush Plants and Specimens the honors where divided between Alfred Flowers and Gustav Newmann of the Mitchell Estate. Edward A. Smith arranged a very attractive exhibit of Solanums, Begonias, Palms and Ferns, Pot Chrysanthemums, etc., all clean, well grown stuff.

In the classes for fruits Mr. Palmer received first for five plates.

Collection ten varieties—Mrs. Wiggins, first; Dr. Rogers, second. Single dishes were shown by a number of competitors, the whole display was very effective and gave great credit to the local growers.

Amateur classes brought out two competitors only, Mrs. G. W. Nichols and W. P. Steward showing six plants of chrysanthemums. The judges for the show were Thomas Snyder, of the Plant Estate, Groton, James Chandler, of the Schull Place, New London.

Chandler, of the Schull Place, New London, W. Guldydy of Norwich

STAXLEY JORDEN.

Secretary.

#### STAMFORD (CONN.) SHOW.

The fifth annual Fall exhibition of the Westchester and Fairfield Horticultural Society was held in the Armory at Stamford, Conn., November 5-6. The 118 classes provided for by the schedule were all well filled, the competition was very keen, the quality throughout the entire exhibition was of a very high standard, and the cultural skill displayed reflected great credit on the exhibitors. Noteworthy features were the trained "Mum" plants exhibited by W. J. Sealey. The "Eats" came next. with a large and varied assortment of vegetables of extra fine quality. The fruit section attracted a lot of attention, the apples being particularly fine. The display of outdoor flowers by J. P. Sorenson, of Essex Fels, N. J., was very large, and really consisted of a botanical collection. flower loving public of today attend the exsee the decorative use of hibitions to flowers, as well as to merely see extra large specimens of blooms. Eight fine dinner table decorations were in evidence. First prize was awarded to Thos. Aitcheson, gard. for Mrs. Nathan Strauss; second, to Mrs. Ewen McKenzie; third, to Alex. Geddes, gard, for Mrs. Albert Crane. A great number of floral center-pieces and baskets were exhibited. The honors were divided by Thos. Aitcheson, Ewen McKenzie and P. W. Popp. The flowering and foliage plant group arranged by Adolph Alius, gard. for J. B. Cobb, won first prize, and was also awarded the prize for the most meritorious exhibit of the show. Cold storage lilacs and spirea were featured in this group. The first prize for group of chrysanthemum plants was won by G. D. Sullivan, gard, for Mrs. Wm. Nichols. P. W. Popp won first prize for group of cut chrysanthemums, all types covering 100 square feet arranged for effect. Robt, Grunnert was a close second. The largest bloom in the show was a fine specimen of the var. Wm. Turner, exhibited by Ewen McKenzie, who carried off first

classes. The most prominent winners were: A. Bieschke, gard, for Wm. Ziegler; Ewen McKenzie, gard, for Miss Georgianne Iselin; Thos. Aitcheson and Wm, Whitton, gards. for Mrs. J. H. Flagler; P. W. Popp, gard. for Mrs. H. Darlington; A. Alius and Jas. Stuart, gards, for Mrs. F. A. Constable; Jas. Linane, gard, for G. D. Barron; Joseph Tiernan, gard, for Adrian Iselin, Jr.; Carl Hankenson, gard, for A. G. Smith; Duncan McIntyre, gard, for Mrs. Ernest Iselin; in the pompon 'mum classes honors were divided by W. J. Scaly, Joseph Tiernan and Thos. Bell, gard, for Fred'k Sturgess; in the single 'mum classes Mrs. F. A. Constable, Miss G. Iselin, A. G. Smith and John I. Downey, Thos. Ryan, gard., were the principal winners; in the carnation classes the honors were divided by W. W. Heroy, A Wynne, gard.; Robt, Grunnert, E. C. Converse, Wm. Graham, gard.: Mrs. Nathan Strauss, E. C. Benedict, Robt. Allen, gard.; Mrs. Albert Crane, J. B. Cobb, Hemy Sturgess, H. Kolberg, gard.; in the rose classes the most prominent winners were Anton Peterson, W. H. McGinnis, gard, for Mrs. L. P. Childs: Henry Sturgess, J. Clunas Alex Geddes, Mrs. Oliver Hoyt, gard, Jas. Foster: in the orchid section honors were divided by E. C. Benedict, Mrs. F. A. Constable Mrs. Oliver Hoyt and J. B. Cobb The most important winners in the miscellaneous foliage plant section, also flowering plants other than those already speciwere: Mrs. H. O. Havemeyer, J. B. Cobb, E. C. Benedict, Miss G. Iselin, Wm. Ziegler, Jr., W. M. Heroy and Robt. Grunnert; in the fruit section, Mrs. L. C. Childs. Mrs. H. O. Havemeyer, E. C. Benedict, Mrs. Albert Crane, W. H. Heyes, Geo. Lowther. Emil Johnson, gard., shared the honors. The vegetable classes were all keenly contested and the most prominent winners were: Mrs L. C. Bruce, John Andrew, gard.; G. D. Barron, Mrs. F. A. Constable, Mrs. Albert Crane, Mrs. Oliver Hoyt, C. F. Wills, Martin Glendon, gard.; Mrs. A. A. Anderson, Robt. Williamson, gard.; Fred'k Sturgess Anton Peterson and Robt. Grunnert.

The judges were Sam'l Redstone, Philadelphia, Pa.; Howard Nichols, Yonkers, N. Y.; Sam'l Trepass, Glen Cove, L. I.; Wm,

Turner, Oceanic, N. J. P. W. POPP, Cor. Sec'y.

#### NEW BEDFORD (MASS.) SHOW.

The annual chrysanthemum exhibition of the New Bedford Horticultural Society held November 9 and 10 was a most noteworthy event, for never before has this city seen such marvels of beauty and even the amateur was much in evidence owing to the open fall.

Competition was very close between D. F. Roy, sperintendent of the Converse place, and A. E. Griff'n, superintendent of the Galen Stone estate. All classes were closely contested, Roy winning three cups and Griffin carrying away two trophies. The class for 18 blooms was so close that decision seemed almost impossible until one flower in the Stone exhibit that was a little too far advanced was discovered; Mr. Roy won.

Henry S. Walsh, of Kingston, exhibited some fine specimen blooms, some as fine as any in the hall, and won five firsts out of

seven entries.

The class calling for a group of chry santhemums arranged for effect always allows for a display of taste, and the person arranging the Converse exhibit certainly showed an artistic temperament. Mums of all kinds, colors, shapes and sizes inter mingled with palms, ferns, dracenas and the like, standing six feet high in the rear and sloping to the floor, created a gorgeous sight and well deserved the recognition given.



Among the amateurs Jose S. Figuerido and Jos. C. Forbes were the chief contestants, premier honors going to the former. Mr. Figuerido also won the cup offered by Mr. Roy (doner not to compete) for the most blue ribbons won during the season. W. D. Hathaway, the dahlia man, was a close second, falling only one point behind, W. F. TURNER.

#### SOUTHAMPTON HORTICULTURAL SOCIETY.

The Southampton Horticultural Society held its fortnightly meeting on November 4, when there was a social reunion and oyster supper and a very strong meeting. Mr. Walter Jagger was the chief speaker for the evening, assisted by Mr. Julius King, Mr. J. Johnson, M. S. Cowen. The meeting closed at 10:30 p. m., all the members agreeing they had spent a most enjoyable evening. The weather being stormy kept many from attending, otherwise the Oddfellows Hall would have been crowded. R. S. CANDLER, Cor. Sec'y.

#### OYSTER BAY HORTICULTURAL SOCIETY.

The regular monthly meeting of the Oys lets, 12 roses, one variety, three heads letter Bay Horticultural Society was held on tuce.

Wednesday, October 27, at Fireman's Hall, Oyster Bay, President presided,

Mr. John Sorosick reported for the committee that the Dahlia Show was quite a

Messrs, Luigi D. Amiello, Gerald Martin and Alex Michie were elected to active membership and Mr. Allan Kirkwood to associate membership.

The meeting room was a flower show in itself and the president appointed the following to act as judges: Messrs, Bell, Robertson and Gibson, who reported as follows: Three chrysanthemums, one variety, society's prize, Joseph Robinson; three celery, soriety's prize, Lewis Denello; three cauliflower, society's prize, Frank Petroccia; collection dahlias, Joseph Robinson, Cultural certificate; vase roses, "Ophelia," William Ford, honorable mention; six vases single mums, James Duthie, certificate of merit; one vase single mums. Frank Kyle, honorable mention; one vase single mums, J. Sorosick, thanks of society; one vase cosmos, J. Sorosick, thanks of society; one vase single dahlias, J. Soresick, thanks of sc. ciety; one vase phlox, J. Soresick, honor able mention: three figs, A. Tannski, thanks of society.

Exhibits for next meeting will be 50 vio-A. R. KENNEDY, Secretary.

#### CHICAGO'S FLOWER SHOW

Chicago's "Grand Flower Festival" which opened in the Coliseum, in that city, on November 9th, proved a most attractive show.

The interest taken in this year's Chicago Fall Show by the private gardeners was greater than at any previous shows of its kind and there was some keen competition between them. The collection of vegetables staged by the Lake Forest and Lake Geneva gardeners in competition was one of the features of the show.

The awards to private gardeners were:

The awards to private gardeners were:

Six white mums, cut-4. J. Mitchell, A. J.
Smith, gardener, first; Mrs. S. W. Allerton,
Robert Blackwood, gardener, second.
Six yellow mums J. J. Mitchell, first; Mrs.
S. W. Allerton, second.
Six pink mums Mrs. F. F. Junkin, A. Johnson, gardner, first; J. J. Mitchell, second; Mrs.
S. W. Allerton, third.
Six crimson mums -J. J. Mitchell, first,
Twelve white mums Mrs. S. W. Allerton,
first; J. J. Mitchell, second,
Twelve vyellow mums-J. J. Mitchell, first;
Mrs. S. W. Allerton, second,
Twelve crimson mums-J. J. Mitchell, first;
Mrs. S. W. Allerton, second,
Twelve bronze mums-J. J. Mitchell, first;
Mrs. S. W. Allerton, second,
Twelve any other color J. J. Mitchell, first;
Twelve mixed mums Mrs. S. W. Allerton,
first,
Twelve mixed mums Mrs. S. W. Allerton,
first,
Signton mums, six varieties, three earls

Eighteen mums, six varieties, three each— J. Mitchell, first. Collection of pompons—Louis F. Swift, J. H. J.

Collection of pompons Louis F. Swiff, J. H. Francis, gardener, first;
Collection of singles—Louis F. Swift, first;
Mrs. F. F. Junkin, second.
Swepstakes in above classes J. J. Mitchell,
Specimen chrysanthemum plant -Mrs. S. W.
Allerton, first; Iowa State College, second; Mrs.
F. F. Junkin, third,
Specimen plant, pompon No first award;
Mrs. S. W. Allerton, second,
Specimen plant, anemone—Mrs. S. W. Allerton, first,

nest

n, first.

Specimen plant, single Mrs. S. W. Allerton, st; Mrs. F. F. Junkin, second.

Specimen plant, white No first award; Mrs. W. Allerton, second.

Specimen plant, pink- Mrs. S. W. Allerton, Specimen plant, yellow- Mrs. S. W. Allerton,

Specimen plant, red Iowa State College.

first. Specimen plant, any other color Mrs. S. W.

Allerton, first.
Twelve plants in 6-inch pots J. H. Moore,

first.
Six large in 6 inch pots. J. S. Tilt, first.
Twelve single stems—J. J. Mitchell, first.
Group of chrysanthemum plants arranged for effect—J. H. Moore, first; J. S. Tilt, second;
J. J. Mitchell, third.

J. J. Mitchell, third.
Group of anemone varieties, fifty square feet Charles L. Hutchinson.
Three ferns—J. S. Tilt, first; Louis F. Swift,

cond.
Specimen palm—Louis F. Swift, first; J. S. ilt, second.
Specimen foliage plant—Gustave Bendel, first.
Nephrolepis, any variety—Mrs. F. F. Junkin, set

Basket of plants-J. S. Tilt, first; Mrs. G. W.

Blossom, second.
Collection of fruit grown outside—Louis F.
Swift, first; North Shore Horticultural Society,

Best club collection of vegetables—Lake Geneva Gardeners' and Foremen's Association, first; North Shore Horticultural Society,

Most meritorious exhibit-G. W. Blossom,

first.

Meritorious exhibit, not otherwise provided J. S. Tilt, first.

#### CLEVELAND FLOWER SHOW

The Cleveland Exhibition was chiefly noted for the marvelous quality of the Chrysanthemum flowers there exhibited. Every grower of repute who had good stock this year seemed to have planned to attend the Cleveland Show, and show the world what he could do.

The best individual variety, was as usual, Wm. Turner, although a great many others were shown in splendid condition.

The competition was very fine and many classes had from six to ten entries. Pos-

Washington, New York; with the Dale Estate of Brampton, Canada, second, and Wm. Duckham, Madison, N. J., third. Other first the prize winners among the more than class exhibits were those of Elmer D. Smith, Adrian, Michigan, and E. G. Hill Co., of Richmond, Indiana. Mr. Vert's finest flowers included Mrs. Drabble, Mrs. Paul Moore, Earl Kitchener, Mrs. J. P. Mitchell, Wm. Turner and F. S. Vallis. Other varieties shown in splendid condition were Odessa in yellow, Pocketts Crimson and Gertrude Peers in crimson, Harry Converse and C. H. Totty in bronze, and of course the unbeatable Turner in white.

For the "100 blooms any variety," E. G. Hill Co. received first for 100 Wm. Turner's which were very fine. The bronze Harry Converse, exhibited by the Dale Estate, were the most beautiful flowers in the show and caused considerable comment.

The commercial types such as Dr. Enguehard, Chieftain and Major Bonnaffon, while wonderful in their way, were not so much noticed as the "big fellows." Chieftain, as shown in Cleveland, was fine.

The largest individual flower in the show was won by Chas. H. Totty, Madison, N. J., with Wm. Rigby, the yellow sport of Mrs. Drabble.

Pompons and Singles were shown in larger array than ever before probably in any exhibition. They were a large feature in all the fall shows and the interest in these types is increasing since they can be grown in any situation and will produce good results.

The Rose exhibits, for a fall show, were of marvelous quality. A. N. Pierson, Inc., Chas. II. Totty, S. J. Reuter & Son, E. G. Hill Co., and other well-known growers all competing.

A great deal of interest was taken in the balloting for a name for a new Rose that was shown at the Cleveland show. By publie decision the Rose was called after the city—"Cleveland." This and another novelty Rose, Gorgeous, was shown by Chas. H. Totty: Tipperary, by the E. G. Hill Co.: Mrs. Bayard Thayer, by the Waban Conservatories, and Red Radiance, by A. Pierson. Inc. Also an unnamed yellow Seedling was shown by S. J. Reuter & Son.

Some criticism was aroused on the opening day by the fact that there were not sufficient judges appointed to judge the stock and some stock was carried over to the second day before being judged. This was an injustice to the eastern exhibitors, whose stock had been in most cases in the boxes two or more days before being staged and delayed another day before being judged. Doubtless another year the committee will see that this mistake is rectified and have an ample number of judges at the show on the opening day.

The plant sent out by Oscar Lewisohn, John Canning, Supt., was the feature of the show, since it was the largest plant ever seen outside of the city of New York. The retailers' displays on the different days were also very good.

The publicity men had worked overtime in their section and the results were abundantly apparent. On the second day the school children being admitted to the show, were so many that traffic was blocked on Euclid avenue, the main thoroughfare of Cleveland, and a squad of eighty-five policemen was necessary to keep the line in order. This is a record for a flower show and the management, one and all, have cause to congratulate themselves on the success of their show.

#### PROVIDENCE, R. I., FLOWER SHOW

was won by Wm. Vert of Castlegould, Port | Narragansett Hotel, Providence, R. I., on Thursday and Friday, November 11-12.

The judges had no easy task in judging forty exhibitors and more than three hundred exhibits. In addition to the regular prizes offered, many specials were awarded. While the varieties of flowers and fruits were many, Chrysanthemums predominated. The Rhode Island Hospital took first prize for the largest exhibition of Chrysanthemums and first prize for the largest bush plant which had more than three hundred blooms. The fine exhibit of apples and pears attracted the visitors' interest.

The exhibition was in charge of Eugene A. Appleton, Joshua Vose, Arthur Sellew, Cornelius Hartstra, Dr. H. W. Heaton. President Dr. H. H. York and Secretary Ernest K. Thomas were ex-officio members of the committee

#### THE WESTCHESTER AND FAIRFIELD HORTICULTURAL SOCIETY.

An unusually fine collection of seasonable flowers were in evidence at the regular monthly meeting, November 12, a feature of which was a splendid showing of Carnations in competition for the prizes offered by Mr. Andrew Kennedy, seedsman of New York City. There were twelve vases of twenty-five each and a finer lot of Carnations would be hard to find anywhere. The winner of first prize was Wm. Graham, second, Robt, Allen. The other exhibitors were accorded the hearty thanks of the society.

Three new members were elected and four new names were proposed for membership. The Fall Show Committee made a report, showing the recent exhibition to have been a great success financially as well as a firstclass exhibition. A rising vote of thanks was extended to all those who helped in various ways to make the exhibition such a grand success. It was voted to change the meeting place from the present hall to the Isaac Hubbard Hall, also in Greenwich, to take effect January, 1916. The Executive Committee presented a list of names to fill the offices of the society for the year 1916, which will be balloted for at the next meeting. A communication from the Nassau County Horticultural Society read at a previous meeting was again brought up for discussion. The communication asked for the co-operation of the Westchester Fairfield Horticultural Society in establishing a movement throughout the country whereby, with the aid and co-operation of the National Association of Gardeners of America, a member of a local horticultural society in good standing, that is, with his annual dues paid up for the current year, who should have occasion to remove to another locality and being desirous of affiliating himself with the local society in the new locality, would automatically become a member of such society upon presentation of an identification card or letter from the secretary of his own society, without any additional cost to him for that year, thereby enabling such member to enjoy the friendship and goodfellowship of his kind. and the usefulness of an enthusiast would not be lost to the profession of horticulture even for a short time. The proposition received the unanimous endorsement of all the members present. The local co-operative will endeavor to assist in every way possible. The members of the Nassau Horticultural Society, as represented by their local co-operative committee, deserve great credit for advancing the most tangible and clearly defined step ever taken in real and practical co-operation, and with the assistance of the N. A. G. Co-operative Commitsibly the best blooms of all were staged in the class calling for "24 varieties," which Island Horticultural Society was held in the profession of horticulture on a plane never

The

before attained in America to my knowledge. The judges made the following awards in the non-competitive exhibits: Ewen Mc-Kenzie for two unusually fine vases of "Mums," Wm. Turner and Odessa, Cultural Certificate; vase of Pompon Mums in forty varieties, from W. J. Sealy, highly com-mended. A Wynne was highly commended for vase of seedling Carnations. The thanks of the society was accorded to Robt. Grunnert for "Mums," P. M. Popp for Lily-of-the-Valley, Wm. Whitton for Coll. Antorhi Mums that were particularly fine, Louis Wittman for Cosmos, Carl Hankenson for Roses, J. B. Andrew for Celeraic Giant Prague was highly commended.

Next meeting December 10. Don't forgethe election of offices for 1916.
P. W. POPP, Sec'y. Don't forget

#### NASSAU COUNTY HORTICULTURAL SOCIETY.

The regular monthly meeting of the above society was held in Pembroke Hall, Glen Cove, Wednesday, November 10, President

Westlake presiding.

Messrs. J. Robinson, J. Adler and W. D. Robertson were appointed judges for the evening, and their awards were as follows: Best three blooms Chrysanthemums, white, first, J. F. Johnston; best three blooms yellow, first, J. F. Johnston; best three blooms pink, first, H. Goodband.

The special prize donated by H. Gaut for the best table decoration (assistant gardeners only) brought out some strong competition, there being seven tables in all. First. M. F. Herganham; second, II. Michaelson; third, J. McDougal.

The annual meeting of this society will be held on Wednesday, December 8, when election of officers for the year 1916 will take place. It is hoped that every member will try if possible to attend this meeting. JAMES GLADSTONE, Cor. Sec'y.

#### NEW JERSEY FLORICULTURAL SOCIETY.

The regular monthly meeting of the above society was held in the Jr. O. U. A. M. Hall, Orange, N. J., on Monday, November 1, 1915, at 8 p. m. A talk on tree surgery and entomology was given by F. A. Cutler of Orange. It was very interesting and enjoyed immensely by the members. Schneider, gardener to Peter Hauck, Jr., received points for the following in monthly competition: Begonia metalica, 80; vase of violets, 60; vase of carnations, 70; vase of 'Mums, 70; Emil Panuska, gardener to Mrs. Wm. Barr, received 80 points for a fine specimen plant of Celosia Pride of Castle Gould. The meeting closed at 10:30 with a vote of thanks to Mr. Cutler for his talk The judges were Wm. Reid, Chas. Ashmead. Deitrich Kuedsgrab.

GEO, W. STRANGE, Sec'y.

#### NEW JERSEY FLORICULTURAL SOCIETY.

The tenth annual Dahlia, Gladiolus, Fruit and Vegetable Show was held in the Jr O. U. A. M. Hall, Main and Park streets. Orange, N. J., on Monday, October 4. show was the greatest success of any ever held by the society.

That the blooms were large and at least the equal of those at the New York show, was the opinion of many present. W. A. Manda staged a wonderful collection and carried off many of the prizes. P. W. Popp. gardener to Mrs. H. Darlington of Mamaroneck, N. Y., took seven first prizes in all the large classes. A fine collection of fruit was staged by Sidney and A. M. Colgate,

## Plant for Immediate Effect Not for Future Generations

START with the largest stock that can be secured! It takes over twenty years to grow many of the Trees and Shrubs we offer.

We do the long waiting -thus enabling you to secure trees and shrubs that give immediate results. Price List now ready.

**INDORRA I lurseries** Wm. Warner Harper Proprietor

Chestnut Hill, Phila, Box O. Pa.



## Burpee's Annual for 1915

tells the Plain Truth about Burpee-Quality Seeds. It is mailed free. Write for it today,—"Lest you forget." A postcard will do. W. ATLEE BURPEE & CO., Burpee Buildings, Philadelphia.

Wm. Reed, gardener, which took first prize. William Shillaber, J. P. Sorenson, gardener, of Essex Fells, N. J., was second with an equally fine display. The miniature gardens were a feature and created considerable interest for visitors. Mrs. A. J. Moulton of Llewellyn Park, Orange, A. A. Thomas, superintendent, took first prize, and the Essex County Country Club, Gustaf Christensen, gardener, was second, although the competition was exceptionally close. pumpkin weighing 70 pounds staged by Donald McGowan and raised in his own yard attracted considerable attention. A special prize, silver medal, was awarded to Sidney and A. M. Colgate for a fine group of palms and foliage plants. A fine display of annuals exhibited by Wm. Shillaber, Essex Fells, was awarded a first-class certificate. They were of excellent quality and variety.

Awards were made in 49 classes, prizes being won by Mrs. H. Darlington, Mamaroneck, P. W. Popp, gardener; W. A. Manda. South Orange; William Barr, Llewellyn Park, E. Panuska, gardener; Peter Hauck. Jr., East Orange, Max Schneider, gardener; Mrs. Rus-ell Colgate, J. Larachan, gardener; Mrs. C. H. Stout, Short Hills; Wm. Shilla-ber. Essex Fells; Walter Gray, Maplewood. and others. The judges were Peter Duff. Orange: W. A. Manda, South Orange, and Alex. Robertson, Montclair.

GEO. W. STRANGE, Secretary.

Send your subscription (\$1.50 a year) to THE CHRONICLE PRESS, Inc. Publishers

The Gardeners' Chronicle of America 286 Fifth Avenue, New York

## 

in Geld Medals at San Francisco and San Dieg irs. You will want some of these witners. Som

THE CONARD & JONES CO. West Grove, Pa.



## G. D. TILLEY

Naturalist

"Everything in the Bird Line from a Canary to an Ostrich'

Birds for the House and Porch Birds for the Ornamental Waterway Birds for the Garden. Pool and Aviary Birds for the Game Preserve and Park

l am the oldest established and largest exclusive dealer in land and water birds in America and have on hand the most extensive stock in the United States. G. D. TILLEY, Naturalist, Box 10, Darien, Conn. 

## The Modern Gladiolus Grower

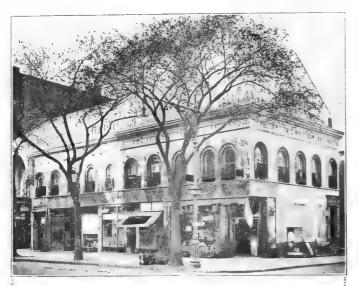
Published monthly in the interests of both amateur and professional flower growers

50c. per year-3 years for \$1.00

The Gladiolus as a flower has been won-derfully improved and is rapidly becoming the tashion. Important developments are looked for in the immediate future

MADISON COOPER, Publisher, CALCIUM, N. Y.





## "A Greenhouse Triumph and Innovation"

Flower Store below and Greenhouse above

Just think, right in the heart of New York City, a full iron frame, curved eave greenhouse, 33 x 125 feet, built on top of a Broadway building. This house was recently completed by us for Mr. C. C. Trepel, the well-known and largest New York Florist. Our plans for this unique building were accepted by the numerous building departments of the City of New York, and the finished job passed by them.

Easy access is gained by an electric elevator from store to greenhouse.

greenhouse.

We know how. Let us prove it to you. Buy your next house

S. JACOBS & SONS

Greenhouse Builders Established 1871

1367-1383 Flushing Ave.

Sentamentum muutuun muuten muutuu kuuluun mentuu muutuu muutuu maa kataa kataa ka k

BROOKLYN, N. Y.

## **Bon Arbor Chemical Co.** PATERSON, N. J.

#### Manufacturers of

BON ARBOR No. 1. Soluble Plant Life. A most wonderful and invigorating food for all plants, indoor and outdoor.

BON ARBOR No. 2. Best dressing for your

RADIX WORM ERADICATOR. Instantly removes worms from your Tennis Courts, Putting greens, etc.

ANT DESTROYER. Will remove all ants outside or indoors in a week's time. Be sure and try it.

NATURAL HUMUS. Is the best for making new lawns, gardens, etc.

> Write for descripive catalogue and prices

. Баланун положин положительного в положительного выположений выположений выположений выположений выположений выпол



Nothing adds more to the beauty and attractiveness of your grounds than a good, substantial fence. Permanency is of prime importance, too. Select the fence that defies rust and withstands all weather conditions.



fences are made of big, strong wires with clamped joints which prevent slipping, sagging or twisting. This exclusive feature assures unusual rigidity under the most severe strain. Excelsior Fences are dipped in molten zinc which makes them practically indestructible. Write for Catalog J from which to select the style best suited to your needs. Ask your hardware dealer for Excelsior "Rust Proof" Trellises, Flower and Tree Guards.

WRIGHT WIRE COMPANY, Worcester, Mass.

## DODSON Feeding Shelters and Bird Houses Save Birds and Win Birds to Live Near You

Put out bird shelters now. Many birds stay north all winter; you can attract them. Give shelter, food and water—save the birds—by getting the genuine Dodson Shelters and Houses.

Catch Sparrows Now

The Dodson Sparrow Trap- no other trap like this—will eath sparrows for you. Now is a good time to remove this enemy of native birds. Price, \$6 f. o. b. Chicago.



#### "Nature Neighbors"

set of beautiful ooks about birds, written by authorities, illus trated in color. John Burroughs says — "Aston-is hingly good."

Free folder showing bird in natural colors. Write for the for the beautiful book telling how to win birds-both free. Write for this and

JOSEPH H. DODSON, 732 South Harrison Ave., Kankakee, Ill.

Mr. Dodson is a Director of the Illinois Audubon Society

## JOIN THE COUNTRYWIDE CRUSADE AGAINST THE SPARROW NUISANCE

Sparrows are destructive. Eat seeds and grains; drive valuable birds away. U. S. Dept. of Agriculture advises destroying sparrows. Many states offer a bounty.

This is the cheapest and best trap. Gu patiows. Order today. Delivered FREE. louses and Food Devices free. Guaranteed to catch E. Catalog of Bird



\$1.75 del'vd.

## E. E. Edmanson & Co.

625 S. Norton St., CHICAGO, ILL.

Knock-Down Bird Houses

а продел и изотрежения порточний и

Build them yourself. Lots of fun. Instructive. Write for Price List.

Science is teaching that it is as essential to

## PROTECT PLANT LIFE

from insect pests and the various fungi with which it is afflicted as it is to properly fertilize it.



At 1 tective in the house and agreeable odors of most treal for professional

the red speder the cart slags, and other the cart slags, and other the cart slags and other for bore the cart slags and the cart slags are slags as the cart slags are slags are slags are slags as the cart slags are 
Gill, 25c.; half pint, 40c.; pint, 65c.; quart, \$1.00; gallon, \$2.50.

## SCALINE

woolly aphis, cottony maple scale, tulip scale, mealy bug, and all soft

The first state of the state of

## FUNGINE

and the second of the second o

el la cen suc part de la territo de gallon, \$2.00

## VERMINE

Gill, 25c.: half pint, 40c.; pints, 65c.; quart, \$1.00; gallon, \$3.00.

Aphine Manufacturing Co.

MANUFACTURERS OF AGRICULTURAL CHEMICALS

Madison, N. J.



## The Dangers in Using Unprepared Humus

muck. Its use increases the acidity of the soil, endangering the destruction of the bacteria, so absolutely essential to all soil fertility. No plant foods are added to make it a balanced soil curichment.

Altho sold from dry samples, it generally comes to you in its original water-logged condition, making an expensive way to buy water.

Alphano with its record of wonderful successes.

Our Convincement Book tells the complete

Alphano Humus Co

Established 1905 17-G BATTERY PLACE

NEW YORK CITY



When it comes to Greenhouses

Come to

Hitchings of Company

General Offices and Factory-ELIZABETH, N. J.

New York 1170 Broadway

(())

(1)

Beston

Philadelphia 40 S. 15th St. の影響の影の影の

影响

((in)

# The three vital features of your Christmas Grafonola

For, of course, your new instrument will be a Columbia, if it is a question of musical quality—of certainty of lasting enjoyment. Judge the superiority of the Columbia Grafonola, first of all, upon its superb tone.

## Tone:-

Tone perfection depends fully as much upon the scientific exactness of the reproducing mechanism of the instrument itself as upon the original recording process. The perfected reproducer and tone-arm of the Columbia Grafonola is the crowning achievement in this branch of the art.

Once you realize the tone possibilities of the Columbia Grafonola, playing Columbia Records or any other records, we believe you will never again be satisfied with any tone lessfull and true, less brilliant and round and natural.

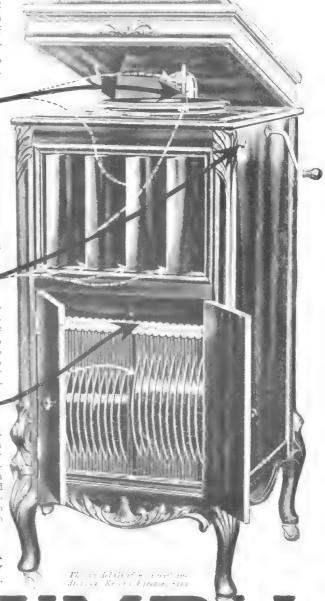
## Tone control:

With the Columbia you have every possible gradation of tone at your command. The tone-control leaves, built on the one right principle of controlling tone-volume, and the wide variety of needles available, give you any and all degrees of tone-volume, from the lightest pianissimo to the resounding fortissimo to fill the largest auditorium.

## Convenience:

Your Grafonola, equipped with the individual record ejectors, an exclusive Columbia feature, is ideal in its convenience. Your records are racked individually in velvetlined slots that automatically clean them and protect them against breaking and scratching. A numbered push-button controls each record—a push of the button brings any record forward to be taken between the thumb and fingers.





COLUMBIA

# 

Herman and the second second

Allend Sinster of



Aside from the old, unsanitary, in I obnoxiously unsightly side of putting stable litter on y ur lawn, there is the distinct disadvantage of having to rake it off, talling with it all its humus and much of the food value as well. With Alphane you utilize its entire value

## What Alphano Will Do For Your Lawn Shrubs—Flowers

I T will, to your entire satisfaction, settle for all time the perplexing problem of getting the right kind of soil enrichment. Not only will it give immediate fertility to your soil, but its benefits will continue for years to come. It is rich in Humus: abundantly supplied with plant foods. Lively with the vital nitrogen-gathering soil bacterias. Odorless Free from weed seed. It comes to you in a dry, finely granulated form.

5 one-hundred-pound bags. \$5. \$12 a ton. \$8 a ton by

Send for the Alphano Book: also "Lawns—Their Care and Fare."



Plant your new shrubs with it. Do it an ability our old ness. The amount and sturdiness of growth will be surprising.



Established 1905.

17-G Battery Place, New York City



When planting your trees this spring, put a couple of shovelfuls at Alphano in the hole. It will be tree, to employ the tree to employ the tree to employ the tree to employ the tree tree tree trees.

## TOTTY'S MUMS

As usual the fall exhibitions "hammer home" the fact that Tottv's Mums are the leaders in all the types, and if you don't grow Totty's Mums the other fellow is finishing ahead. My Novelties for 1916 are the BEST EVER. They include:

#### YELLOW TURNER

A yellow sport of the justly famous Wm. Turner, the finest Show variety I ever introduced. Yellow Turner is exactly identical in every respect, save color.

#### YELLOW MRS. DRABBLE (WM. RIGBY)

Like Yellow Turner, this is an exact duplicate of its parent in every respect; marvelous in size and finish; a sport of Mrs. Gilbert Drabble.

## **MORRIS KINNEY**

MRS. J. GIBSON An incurving stiff stemmed white that is a wonder in A light pink that I exhibited 10 inches deep and 91/2 every way. inches across.

White Sport Well's late pink, Synonymous ELVIA SCOVILLE.

DID YOU SEE OUR NEW SINGLES AT THE SHOWS?

## NOVELTY ROSES FROM DICKSON

Two "wonders" for forcing:

## **GORGEOUS**

A pink with bronze and yellow shadings.

CLEVELAND

A lovely rose-pink, which was named at the Cleveland Flower Show, and which has already won two Silver Medals for the best New Rose.

## CHARLES H. TOTTY, Madison, N. J.

## Old English Gardens Plant the Seeds That Have Made Them Famous Plant the seeds that have been used in England's famous gardens for over a century. The seeds used in the royal gardens of England's king. The seeds that are the acknowledged largest winners in all the British Isle shows. The seeds that you can absolutely depend on being true to name and rigidly tested for germination. GRASS SEED Send for our price list of grass seed. Absolutely clean

## Seeds. We have been selling them for over one hundred years. SEND FOR FREE CATALOG

seed—several pounds heavier per bushel than any we know of. The same purity and high germination as the other Sutton

So costly is this superb catalog of 190 pages, that we customarily charge 35 cents for it. But to you, as a Gardeners' Chronicle reader, we will send it free.

Sutton Sous

Royal Seed Establishment

READING, ENGLAND

WINTER, SON & COMPANY

Agents East of the Rocky Mountains 66-C WALL STREET . . . NEW YORK

THE SHERMAN T. BLAKE CO., PACIFIC COAST AGENTS
429 Sacramento St., San Francisco

## BURPEE'S SEEDS GROW

POR forty years we have rendered faithful service. For forty years we have tried to make each year's service more nearly ideal. This untiring effort has built for us not only the World's Largest Mail Order Seed Business, but also a world-wide reputation for efficient service and undisputed leadership.

Much more opportune than anything we ourselves may say about Burpee Quality Seeds, are the many remarkable things our thousands of

customers and friends have said and continue to say about them. These customers return to us year after year, not because seeds cannot be found elsewhere, but because of our superior quality and service.

Any one who is not thoroughly satisfied with the products raised can have his money back any time within the year, for such is the guarantee that protects all who plant seed bought from Burpee of Philadelphia.

## Fortieth Anniversary Edition of Burpee's Annual

"The Leading American Seed Catalog" for 1916 is unlike any other catalog. The front cover illustrates in nine colors the greatest novelty in Sweet Peas, the unique "Fiery Cross." The back cover shows the two famous Burpee Bantams, Golden Bantam Corn and Blue Bantam Peas.

The colored plates, six other Burpee Specialties in Vegetables, and the Finest New Burpee Spencer Sweet Peas; also the New Gladioli, Fordhook Hybrid. This Silent Salesman is mailed free. A post card will bring it. Write today.

## W. ATLEE BURPEE & CO.

Burpee Buildings

SEED GROWERS

Philadelphia



Elvia Scoville

A.N.PIERSON INC.

CROMWELL CARDENS

CROMWELL CONN

## New Chrysanthemums

To the Private Grower the new white ELVIA SCOVILLE

will appeal strongly. It is a pure white sport of Wells' Late Pink. It is an exhibition variety second to none. We offer early delivery.

50c. each, \$5.00 per dozen

## OGONTZ and ARTISTA

Smith's Novelties

Ogontz is a light bronze seedling of Nakota. It is one of the finest new 'Mums. Double on any bud. Can be done as big as Nakota.

Artista is a big, pure white. Reflexed.

1.50 each, 15.00 per dozen

## Our New Rose

Red Radiance will find a welcome with the Private Grower. The color of American Beauty. The Red Rose any gardener can grow.

> \$30.00 per 100 Grafted 3-inch for May delivery

Buy your Roses from us and get quality

## The MacNiff Horticultural Company

54 and 56 Vesey Street, New York

The Largest Horticultural Auction Rooms in the World

We are in a position to handle consignments of any size, large or small. Prompt remittances made immediately goods are sold

## BODDINGTON QUALITY SEEDS

NOW READY

ONION, Gigantic Gibraltar. Larger than Ailsa Craig, the great Exhibition variety. 50c. per pkt., 3 pkts. for \$1.25.

AILSA CRAIG, Sutton's. 75c. per pkt., 3 pkts. for \$2.00.

LEEK, Boddington's Prizetaker. 50c. per oz. EGG PLANT, Early Black Beauty. 10c. per pkt., 50c. per oz.

1916 Seed Catalog on application. Ready January 1st.

## REMOVAL NOTICE

We wish to announce to our numerous friends and customers that on or about Jan. 1st, 1916, after extensive alterations are completed, we will move to our new and more convenient premises at

128 Chambers St., New York.

Arthur T. Boddington Co., Inc. *SEEDSMEN*,

342 West 14th St., New York.

## 1916

SEE THAT YOU RECEIVE OUR NEW ILLUSTRATED CATALOGUE

ALSO OUR NURSERY CATA-LOGUE OF SHRUBS, TREES, PLANTS AND OTHER NURSERY STOCK



Write for our catalogue which will be mailed free on request

W. E. Marshall & Co.

166 West 23rd Street NEW YORK

BULBS

Gladiolus, Lilies, Tuberoses

Flower, Vegetable, SEEDS Lawn, Field

NEW and RARE, HARDY and INDOOR PLANTS

1916 SEED BOOK for the asking

Vaughan's Seed Store, CHICAGO NEW YORK

Incorporated 1911

ANDREW K. KENNEDY, Pres. and Treas.

# KENNEDY & HUNTER SEEDSMEN

SEND FOR BULB CATALOGUE

156 West 34th Street One block from New York

"ONLY THE BEST"

## DREER'S GARDEN BOOK FOR 1916

is more than a catalogue. It is a guide-book of authoritative information on when to plant, how to plant and what to plant in whatever line of gardening you are interested. It contains cultural articles written by experts and is valuable alike to the amateur with a small plot or the professional with acres. It contains 288 pages, four color and four duotone plates. It lists all the dependable, tested, standard varieties of flowers and vegetables as well as the season's best novelties.

The newest Roses, the best Dahlias, and Dreer's Improved Hardy Perennials are given special prominence.

It features a number of noteworthy specialties in Vegetables, Sweet Peas, Asters and Phlox. Whatever is worth growing you will find in Dreer's Garden Book for 1916, with full instructions how to grow it.

Ready in January, and will be mailed free if you mention this publication.

## HENRY A. DREER

714-716 Chestnut Street, PHILADELPHIA

# Announcing "Garden & Lawn"

Write for a copy of this beautiful seed catalogue and handbook on gardening. It contains many directions on cultivation, etc., and is profusely illustrated in color.

Here are listed all the varieties offered by James Carter & Co., Raynes Park, London, England. These are the famous "Seeds with a Lineage" whose record in purity and germination has established a reputation both abroad and in America. Send now, for the edition is limited.

## CARTER'S TESTED SEEDS, Inc.

111 Chamber of Commerce Bldg., Boston, Mass.
Branch of JAMES CARTER & CO.
LONDON, ENGLAND

Barters Tested Seeds

## **BOBBINK & ATKINS**

"WORLD'S CHOICEST NURSERY AND GREEN-HOUSE PRODUCTS" GROWN IN AMERICA

You have the finest range and material from which to select in our Nurseries:—

HOMEGROWN ROSES

**EVERGREENS AND CONIFERS** 

SHADE TREES AND FLOWERING SHRUBS HOMEGROWN RHODODENDRONS AND KALMIAS

HARDY OLD-FASHIONED FLOWERS AND BULBS

FRUIT TREES. TRAINED AND ORDINARY, AND SMALL FRUITS

PLANT TUBS AND BOXES, RUSTIC WORK AND GARDEN FURNITURE

We specialize in the above by having a department for each subject.

All are described in our ILLUSTRATED GENERAL CATALOG NO. 45, mailed upon request, and can be seen in visiting our Nurseries at any time.

"We Plan and Plant Grounds and Gardens Everywhere"
NURSERYMEN, FLORISTS AND PLANTERS
RUTHERFORD, NEW JERSEY

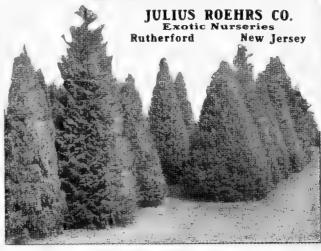
## Evergreen Trees

There is nothing more beautiful or decorative about the country estate, public and private parks than the Evergreen. It is attractive both summer and winter, and is always admired.

We make a specialty of strong, healthy nursery stock and can furnish all varieties of

## Trees, Plants and Shrubs

Visit our nurseries, where we have at all times a most interesting display, or send for booklet on Hardy Trees and Shrubs,
Greenhouse Plants and Orchids.



# John Scheepers & Co., Inc. FLOWER BULB SPECIALISTS

TWO STONE STREET

New York City



Bulbs that Appeal To the Most Critical

"Excellenta" Quality Bulbs

## TWO NEW "MUMS"

FOR THE BACK ROW

Artista.—This we believe is the largest Exhibition variety we have ever raised and doubt if it will be surpassed by any now grown, not excepting Wm. Turner, Odessa, etc. Outer petals grooved or channeled, reflex, while the center ones incurve irregularly, giving a very artistic appearance to the bloom. Dwarf habit, will not attain over 5 ft. from February propagation. White with a slightly creamy tint in the depths. Best bud August 20th, maturing the last days of October. All exhibition growers are bound to accept this as one of the best.

Ogontz.—A seedling from Nakota which it greatly resembles in foliage, and has the same whirling arrangement of petals, with size equal to its parent. The petals are decidedly grooved or channeled. Color, light primrose, height 6 ft. Would not advise a bud earlier than August 30th as the blooms are double from those selected in September. Practically the same as Nakota except color, maturing first week of November. May also be advantageously grown as a commercial maturing November 20th from buds taken September 20th and after.

Price.—\$1.50 each; \$12.50 per ten; \$100.00 per hundred. Delivery on or before February 1st, 1916. Not less than 5 plants of a variety at ten and 25 at hundred rate.

## ARE BOOKING ORDERS NOW

It is difficult to keep our mailing list of Private Gardeners revised to date. If you do not receive our catalogue please ask for it.

## ELMER D. SMITH & CO.

ADRIAN, MICH.

## Xmas Greetings

to our

## FRIENDS AND PATRONS

Our new 1916 Illustrated Spring Catalogue will be mailed to you during the first week in January, also our separate list of the most recent and up-to-date novelties in Flower Seeds.

Should you not receive same, or if you are not on our mailing list, notify us and another copy will be mailed by return.

## Burnett Brothers

Seedsmen

98 Chambers Street

Telephone 6138 Barclay

**NEW YORK** 

## Meehan Handbook For 1916

A book every alert gardener should study thoroughly. Compact and handy in form, complete in its information

## "HARDY PLANTS THAT GROW OUTDOORS"

profusely illustrated—it includes special collection offers for various purposes.

Any property of one acre or less can be planted from the street front to the small fruit-patch in the rear by combining these collections. Selection and ordering are made easy by this book—free on request. Write today.

#### THOMAS MEEHAN & SONS

Pioneer Nurserymen of America

Box 65 Germantown, Phila.



## THE ELIZABETH NURSERY CO.

OF ELIZABETH, N. J.

OFFER Large Specimen Shrubs, in good assortment, several times transplanted, such as Berberis Thunbergii, Azalea Amoena, Weigelas, Aralia Spinosa, Deutzias, Viburnum in variety, Euonymus Alatus, and Cornus Florida 6 to 8 ft. high, 5 6 ft. across; AMOOR RIVER and IBOTA PRIVET of all sizes in large

quantities, and many other varieties; the largest stock of large EVER-GREENS in this country; HERBA-CEOUS PLANTS equal to any.

Write us

## The Contents---December, 1915

	Page		Page
Gardeners of the Lenox Section of Massachusetts	533	American Association of Park Superintendents'	
Determination Harrison Emerson	536	Notes	559
Things—Thoughts of the Garden The Onlooker	537	Boston's Mayor for Sunday Recreation in Parks	563
Is Gardening a Profession? W. W. Ohlweiler	539	Park and Playground Leaders Meet	564
The Origin and Meaning of Church Decorations		Insects on Park Vegetation	564
at Christmas		Bird Preservation for Pleasure and Education .	565
The Mistletoe Willard N. Clute		Vinca Culture	566
A Christmas Garland		Growing Darwin Tulips	566
Possibilities in Landscape Forestry (Cont'd)		Garden Club of Allegheny County, Pa	566
Arthur Smith	544	Horticultural Society of Western Pennsylvania	566
Is "Landscape Forestry" a Misnomer?		Massachusetts Horticultural Society	566
H. F. Major		Pennsylvania State Horticultural Society	566
Duke's Farm Exhibits in New York	545	Directory of National Associations and Local	
Work for the Month of January Henry Gibson	546	Societies	567
Country Estate Management and the College		Horticultural Events	569
Graduate Morell Smith		Menlo Park, Cal., Show	570
Cultural Notes on Gardenias R. W. Fowkes	548	Hartford, Conn., Show	571
Washington Atlee Burpee	549	Oyster Bay, N. Y., Horticultural Society	571
Novelties for 1916	550	New London, Conn., Horticultural Society .	571
Editorial	552	Nassau County, N. Y., Horticultural Society .	571
Why We Are Prosperous		Southampton, N. Y., Horticultural Society .	572
Good Bye, Old Year, Good Bye!		Tuxedo Park, N. Y., Horticultural Society	572
National Association of Gardeners' Notes .	553	Paterson, N. J., Floricultural Society	572

## LILIUMS---SPIREA---LILY OF THE VALLEY

The following bulbs and roots have arrived:

#### HARDY LILIUMS

The three best Hardy Lilies for outdoor or indoor growing have arrived. Have you placed your order for your full requirements? They may be planted now in pots and carried over until planting out time next spring.

AURATUM (Golden Banded Lily)		SPECOSUM ALBUM	SPECOSUM MAGNIFICUM			
	100	Doz. 100	Doz. 100			
8 to 9 inch bulbs \$1.00	\$8.00	8 to 9 inch bulbs \$2.25 \$15.00	8 to 9 inch bulbs\$1.00 \$8.00			
9 to 11 inch bulbs 2.25	15.00	9 to 11 inch bulbs 3 50 25.00	9 to 11 inch bulbs 2.25 15.00			
		11 to 12 inch bulbs 4.50 35.00	11 to 13 inch bulbs 3.50 25.00			
13 to 15 inch bulbs 4.50	35.00		13 to 15 inch bulbs 4.50 35.00			

## S. & W. CO.'S RUSSIAN LILY OF THE VALLEY COLD STORAGE

If you are contemplating having Lily of the Valley in constant supply from now on and have not placed your order have them packed in cases of

TO MATE CHICAL PROTECT III	0.000	
100 S. & W. Co.'s Famous	Russian Valley for \$3.50	1,000 S & W. Co's Famous Russian Valley for\$25.00
		2,000 S. & W. Co.'s Famous Russian Valley for
500 S. & W. Co.'s Famous	Russian Valley for	

## SPIREA (For Easter Forcing)

								Each	Doz.	100
This	Spirea.	which	was	first	intro	ditte	d in	this		
	itry last									
Cour	HITY TAST	t year,	nas	prove	u to	De	tne	nnest		
pink	Spirea	extant.						\$0.35	\$3.50	\$28 00

entrologico de la company de l

OUEEN ALEXANDRA		
Each	Doz	100
Shrimp-pink; a variety very largely grown on account of its even color and dense, compact spikes\$0.25	\$2.50	\$12.00
GLADSTONE		

and the state of t

 One of the finest and most extensively grown of the white varieties. Spikes of pure white flowers, borne on stems 1½ feet high; foliage excellent.... .20 2.00 10.00



# 30-32 Barclay Street NEW YORK CITY

Seed and Bulb Growers and Importers

## GARDENERS' CHRONICLE

## OF AMERICA

THE OFFICIAL ORGAN OF THE NATIONAL ASSOCIATION OF GARDENERS

Devoted to the Science of Floriculture and Horticulture.

THE AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS.

Devoted to Park Development and Recreational Facilities.

Vol. XIX.

DECEMBER, 1915.

No. 12.

## Gardens of the Lenox Region of Massachusetts

In the early days of October it was my happy privilege to be able to take a round trip by way of the Hudson River, then in the first flush of its autumn splendor, the heavily timbered slopes on either side for most of the journey being tinted with gold, amber and crimson. A veteran of the G. A. R. who was returning from the great review at Washington, was heard to remark, "This is the finest part of our whole trip." The warrior who spoke had an ensign pinned to the lapel of his coat bearing the word "Illinois," so it can be safely assumed that he had traveled quite some distance. So much for the American Rhine. It is a noble river worthy of all the praise that has been bestowed upon it.



EVERGREEN PLANTING ALONG THE DRIVEWAY, AT "ALLEN WINDEN," LENOX, ON THE APPROACH TO THE RESIDENCE OF CHARLES LANIER.

From Albany the journey was made to Pittsfield, Mass., and by trolley to the little town or big sized village of Lenox, in the midst of the Berkshire Hills. This district is one of much splendor, consisting of pretty hills with deep cut valleys and here and there a lake, most of the hills being heavily wooded with trees that in some cases represent the primeval type of forest; these were oak, birch, maples, tulip trees and some evergreens.

The whole countryside is dotted with beautifully kept estates and houses of the wealthy, and everywhere there are splendid highways and miles of smooth tarvia, which criss-cross the country from end to end, Massachusetts especially. The Hudson River lies directly west some 30 or 40 miles away. It is here that one finds some of the

best gardens and gardening of the United States, and it is said that within a radius of three miles or so around Lenox there are 27 private estates of varying size.

Another notable point is that the gardeners and superintendents here evidently enjoy the confidence of their employers to the fullest extent, and indeed in many cases, while the places have changed hands the gardeners have remained at their posts, in some instances under two or three different owners or agents.

At Allen Winden, the estate of Charles Lanier, in charge of A. H. Wingett, one finds a compact range of glass, Pierson U-Bar houses, all modern, where Roses, Carnations, and quite a considerable display of orchids are all well grown. Lady Hillingdon among the Roses, from June planted stock, was doing especially well in solid benches. Hadley and Ophelia, too, were favorites, as well as Ward; it would be difficult to find better Roses than these anywhere.

Of the orchids, mention might be made of Ada aurantiaca, Oncidium ornithogalum, which one finds is a great favorite in nearly all gardens of this neighborhood. When nice specimens in 5-inch or 6-inch pans are well



GLIMPSI OF PLAZZA OF CHARLES I ANIER'S RESIDENCE, SHOW-ING VISTA OVER THE EVERGREENS, OF MOUNTAINS SEVERAL MILES AWAY.

flowered they are indeed one of the most delightful of all decorative indoor plants; thirdly, Odontoglossum grande, a plant not so trequently seen as it ought to be.

There were also nice batches of Dendrobium, Phalænopsis, Vanda cærulea. Cattleya Bowringiana, and of course the essential Oncidium varicosum, Cattleya labiata and C. Mossiæ.

A bench filled with Adiantum Farleyense was very refreshing and attractive, and here my friends got a laugh upon me when I asked if these were from spores, forgetting, if ever I knew, that this plant is propagated by division of the crown. A good story is told in this connection of one gardener who generously gave an order for an ounce of Farleyense seed to a traveler for one of the seed houses. He is still waiting for that ounce of seed.

Of the Carnations, allusion should be made to the variety Lady Algy, a very free flowering scarlet-salmon, named in honor of Lady Lenox; also Benora and Mrs. Ward. White Wonder likewise appeared to be another of Mr. Wingett's chief standbys in the other benches.

A neighboring house contained a very brilliant collection of single and double flowered tuberous Begonias of the best strains from Blackmore and Langdon, English raisers, but the plants, of course, were now well past the heyday of their glory. Nevertheless, it was a real treat to see these resplendent plants so well cultivated and to find the climate of this region suiting them so well. In many parts of the United States tuberous Begonias cannot be got to flourish. One would like to see the hybrid Winter-flowering Begonias taken up and made a success of, too, by some of our friends in Lenox. They are, indeed, very well grown by a few of the Boston men, and once in a while they are exhibited at New York shows. This is a race of strong growing Begonias raised by crossing the single pink-flowered species Socotranos with double tuberous kinds. The man who first cross-

bred or hybridized and obtained varieties in this section was John Heal, one of the sectional foremen at Veitch's great nursery in London. He started work some 20 years ago, and introduced as his first Winter Cheer and Mrs. Heal; each of them carmine singles, with large flowers in liberal trusses. He was a most efficient plantsman and succeeded with these almost better than any other person. Even today in England, after Winterflowering Begonias have been exhibited for many years in the finest style, it is the exception rather than rule to find plants anything like as well grown as Heal grew them. One ventures to think, however, that if an exhibit of thoroughly well grown plants of these hybrids in some of the newer double flowered pink and orange shades were exhibited at November or December exhibitions they would cause something of a sensation.

To return to Mr. Wingett's houses, memory brings to view some remarkably fine zonal Geraniums in 8-inch pots, spreading out to a couple of feet in diameter, crowded with trusses of bloom. These were three-year-old plants, as Mr. Wingett believes that old stools flower best. This is not the view held by some other growers, who also produce big specimen Geraniums grown from cuttings taken the same year.

In speaking of ferns one should have mentioned Polypodium Mandaianum, which together with palms and other foliage plants filled one of the houses.

Indoor Peaches, Grapes, Figs and Melons were all in first-class condition; the Figs being branching young stock 2 feet high, from cuttings taken early last Spring. Melons are cut from the first of July onward.

Out-of-doors one found show borders of hardy Phloxes, Anemone Japonica (which comes through the Winter here if it is covered with manure), and other hardy plants in their season, affording something to steady the eye upon, or to cut for the house.



APPROACH TO GREENHOUSES AND FARM AT "ALLEN WINDEN" THE LENOX ESTATE OF CHARLES LANIER

Casting back one's mind, one of the strong features at Elmcourt, the home of Mrs. J. Sloan, where A. Heereman is superintendent, was the flower garden laid out on a southern slope below the plant houses, all the beds being mainly rectangular and filled with plants of one kind. Some damage had been done to the effectiveness of the general scheme of color and combination this year owing to the stem rot disease which carried off the Antirrhiniums. No cure seems so far to be known for this trouble, which may very gravely imperil the development of this most desirable and beautiful Summer flower. Others of the beds contained Phloxes, Dahlias, Cannas, Anemone Japonica, Pandanus scabious, Heliotrope, Salvia splendid, Gaillardias, double Marigolds, Achillea Ptarmica fl. pl., Carnations, Rudbeckia, Galtonia, some ·of these also being used in borders.

The Dorothy Perkins Rose is liberally and well em-

THE ROSE GARDEN AT "WYNDHURST," LENOX.

ployed on trelises and arches. Good use was also made of the ordinary Tropeolum or Nasturtium on the wall of the potting sheds, making quite an effect.

Under glass there were nice crops of Radiance and Ophelia Roses, fine Crotons, Princess of Wales being grown to a single stem, 4 feet high, and the perfect picture of health, as well as being finely colored. Mignonette, Stocks, Antirrhinums, and two houses of Cattleyas also called for reference.

A delightful old English garden has been made in the front of the house with flag stones for steps in a line down the terraces, and on each side, set upon pillars, were marble tazzas. A pergola, very substantial-

ly and well made, of beautiful design in the form of a semicircle, terminated the lower end of this terrace garden, and here a delightful fish pond and fountain were placed, the pergola itself being covered with a selection of beautiful hardy creepers and on either side at the limits of the terrace were plantings of choice evergreens.

Another notable feature of Elmcourt is an ancient Elm tree, which has attained the remarkable height of 98 feet, and is rightly regarded as one of the largest in New England.

Very handsome Latanias in tubs, as well as other palms, notably Phoenix humilis, reaching 25 feet high, were striking objects in the forecourt.

The gardens at Wyndhurst, over which A. J. Loveless presides, are of the most notable in the Lenox district. complete in all their parts, and everything outdoors and

under glass is remarkably well done and lacks nothing.

One of the more recently developed features is the hardy plant garden in which Roses play a prominent part. These are in beds by themselves and also used on arches and fences. The whole garden is well sheltered, lying a little to the north of the house. Here one finds large beds filled with one kind of plant, or several contrasting kinds, such as a bed of Delphiniums, a bed of Anemone Japonica, or Iris dalmatica. Sometimes a combination of plants is used, as in the case of one filled with Zinnias, Penstemon Scarlet Gem, and Phloxes; or a yellow bed containing Rudbeckia, Marigolds, and touched up with orange and scarlet Kniphofia Pfitzeri. Iceland Poppies had been used as an edging.

Much use, and good use, is made of the Summer Cypress, Artemisia racemosa, a very graceful plant, not sufficiently appreciated, and fine for sub-tropical bedding

or for other good effects in Summer plant-

mgs.

A border of Foxgloves, while past its glory, and indeed being replanted for the coming year, gave token of the beauty that must have been here in the earlier season. A Sweetbriar hedge ran close by this border, and Multiflora Roses were also intermixed with the other Ramblers. Peonies are also very liberally employed, making this hardy flower garden a very delightful place.

Coming from this we pass by the residence over the lawns which, even in Lenox,



THE OLD FASHIONED FLOWER GARDEN AT WYNDHURST, THE LENON FSTATE OF W. F. S. GRISWOLD.

are famous, being smooth, well kept, without weeds or burned-up patches. As is the case with all the Lenox gardens the grounds are well planted with handsome evergreen and deciduous trees.

One cannot forget the beautiful formal Rose garden situated contiguous to the garden of hardy plants. Beds for flowers are also employed here, and it was somewhat of a surprise to find Gladiolus Brenchleyensise that had been planted in July in full flower in October, and very welcome, too.

And still another feature is found in the tennis court, which has a clay surface. This was made by first putting in 12 inches of coarse stones, 4 inches of cinders over these, and 4 inches of clay on top. The court drains to the center, where pipes take off the surplus water. Dustings of sand give good footing to the court, which keeps very dry always.

A very fine piece of planting is seen by the entrance of the house, so fine that it has been especially referred to in Bailey's Cyclopedia of Horticulture as a good example. The walls themselves are covered with the climbing Ampelopsis, not Veitchii, but muralis, a larger leaved

type, which also clings.

One cannot hope to mention all the good things that one saw even on a short visit, but returning to the glass houses it was a surprise and pleasure to find a collection of 500 Odontoglossum crispum in 5-inch pots, then in flower, rather an unusual time—but so excellent a plant is never out of season. These crispums are grown on raised wooden benches in a lean-to house facing north, and are kept moist, shaded and as cool as possible during the Summer. Very few growers can make a success of this species in the United States, but the plants here look certainly in a robust and healthy condition, and gave evidence of a fine crop. Ada aurantiaca was also in good shape, as well as batches of the other better known and more generally grown orchids which need not be named.

Rex Begonias are also somewhat of a feature, while of course, as becomes an ex-president of the Chrysanthemum Society of America, and still an active member of it, Mr. Loveless grows a large quantity of chrysanthemums, these being not in benches, but in pots. Since my visit the records of the Lenox Show have proved that the quality was all right.

Other houses are devoted to such crops as Wallflowers, Mignonette, Antirrhinums, Stocks, Sweet Peas, and Lupines, all in benches. These furnish flowers during the Winter, and a constant supply has to be maintained. The houses in which these are grown are mostly hipspan, the plants being at an average of a foot apart in

6 inches, or a little more, of soil.

As an Amaryllis grower Mr. Loveless has none that surpasses him, and it may be recalled that he exhibited plants at New York Spring Show, 1915, twenty months from seed. He believes in keeping the bulbs growing as long as they can swell up, and in ripening them off gradually. A bench was filled with large, plump looking bulbs that looked particularly happy, and which early in October had still some way to go, and they were doubtless being fed with liquid manure prior to drying them off and so ripening them completely for their Winter rest. Cross breeding is also done here, and a batch of 22 crosses, six plants of each, was pointed out.

The beautiful and graceful Calceolaria Clibrani, which grows  $2\frac{1}{2}$  feet to 3 feet high, bearing bright yellow flowers, is a subject that deserves to be more often met with. Possibly the new Cotswold Beauty will also be tried. Sweet Peas were then in 3-inch pots, and would

give flowers early in the New Year.

Another interesting subject was Geranium citriodora in pots, very fine bushes. A thing like this, when liberally grown, provides many "evergreen" sprays for putting in with the cut flowers. Well grown bushes are also fine in themselves.

Euphorbia jacquiniæflora furnishes its long, graceful, arching sprays of scarlet flowers in Midwinter, and is grown in benches, the cuttings taken in Spring and then planted out later; they are pinched once at least, and were 6 feet high at the time of my visit.

The Rose houses are first-class, and the original of the Red Radiance that A. N. Pierson, Inc., of Cromwell, Conn., has introduced, was seen here. It was from Mr.

Loveless that the Pierson firm got its plant.

Carnations are equally well grown, and in quantities to suit the somewhat large call for cut blooms.

The celebrated red Sunflower, one got from Sutton &

Sons, crossed with the variety Stella, gave further proof of Mr. Loveless's crossbreeding activities.

Everywhere there was evidence of well directed effort, crowned with success, and one left with the resolve to try and pay a visit there again as a future pleasure.

Ethwynd is the neat and well kept property of Mrs. Robt. Winthrop which, although not so extensive as some of the estates further west, has some good examples of gardening. It is here that Mr. Carlquist, a giant in the Sweet Pea exhibition halls, grows his remarkably fine prize-winning blooms. He and Edward Jenkins are the two most redoubtable combatants in Sweet Pea culture at the Summer shows, and together fairly well swept the

decks this year.

In the month of October, 1915, the trenches were being prepared for the crop of 1916. The same piece of ground has been used for a number of years, but a plan is kept, and where lines are this year will be the paths or alleys next year, the space between being the trenches and Pea lines in turn. There is no half measure here, but a sturdy man was throwing up the soil from the bottom to a depth of  $3\frac{1}{2}$  feet, keeping the good rich top soil on one side. Manure is well incorporated in the lower strata of the soil, which is then filled back and is ready for planting. The Peas are sown on February 1 in 4-inch pots and grown on slowly, being placed out in cold frames, and grown there until it is safe to plant them in the rows in April. The whole course is a thorough one, and is undertaken without the least doubt of good results.

Tulips and Narcissi in boxes, covered with 4 inches of soil, told of a goodly wealth of forced bulbs, some time in

the dull months ahead.

Indoors there was noted a very fine strain of Celosias, also tuberous Begonias of the finest English strains, both single and double, also the variety Golden Shower, which is so admirable for baskets.

The best types of English Peaches are also grown under glass, the recently introduced early Peregrine being highly spoken of. Very little actual forcing is done. The Peaches come in in June, and the supply continues until September. Some good pot grown Figs deserve mention, while in the kitchen garden department Mr. Carlquist is also particularly strong, almost as strong as he is in Sweet Pea culture.—ITINERANT.

( Fo be Concluded.)

## CONSOLATION.

I heard a tuneful thrush
Pour out his soul in song,
As though in all the world
There could be nothing wrong.

And yet the cost of worms
Perhaps might make him rue;
The mortgage on his nest
Perhaps was falling due.

But then, you see, a thrush Must sing, or else be still And silence is a fate We all consider ill.

So when you want to grouch And whine like everything, Be glad you're not a bird That simply has to sing.

## Things and Thoughts of the Garden

By The Onlooker.

Those of us who forgot to protect our more tender plants, thinking that the mild open weather would continue, got caught when the snow came, and the plants may have a bad time ere we can get at them again and put things right. In gardening he who hesitates is lost. Delay in shading a plant, delay in giving ventilation, delay in potting-on a batch of stock, or in pinching back at the crucial time-these things, just as much as delay in affording shelter from inclement weather, are all dangerous. Has the snow done harm to the large evergreens? Here again many a fine specimen has lost a branch or branches through the want of a little timely attention. A few men with long poles can, in an hour or two, greatly relieve the overburdened boughs of some of their weight of snow before the wind may rise. It is wind, ice and snow, or simply wind and snow together, that does the damage, but the efforts even of feeble man can assist the trees and tide them over a difficult period (sometimes).

At the Zoological Garden, the Bronx, N. Y., there are some very interesting and beautiful Box edgings, just as there are at George Washington's old home at Mount Vernon, Va. Those at the Zoo are "boxed" in; in other words, a framework is nailed longitudinally over them and on and over this are placed Spruce branches. In this way the true symmetry of outline is rigidly preserved. The same idea can be carried out in protecting borders of tender or barely hardy plants. The air space between the top protection and the soil is valuable in itself, at least I presume it must be, on the same principle that the double light sashes are valuable. It is the layer of air between the upper and lower lights that acts as a preventive to excessive or too rapid radiation, the principle of the thermos flask.

Who finds Lavender hardy with them, and what are the winter conditions in your section? In northern New Jersey there are several gardens where this plant comes through the winter victoriously, while in New England it fails. Is Massachusetts so very much colder than the region west of the Palisades? In any case this is just one of the plants that is worthy of all the care we can give it. It has the history and memories of ages clinging around it. Let us have "sweet Lavender."

This latter paragraph brings to mind the sight and fragrance of several "scented gardens," a feature that, like several others, might well receive attention. A very excellent book by Donald MacDonald entitled "The Scented Garden," was published some years ago in England. Mr. MacDonald was at one time manager of Carter's seed store at Holborn, and left to devote himself to journalism, becoming garden correspondent of the Daily Telegraph, one of the great London dailies, and I presume he is there still. Another fertile writer and gardener of good repute who wrote a very fine series of papers on scented plants, on perfumery, on essential oils, and on the whole botany, history and literature of the subject, was the late F. W. Burbidge, of Trinity College Garden, Dublin. His papers were published in the Journal of the

Royal Horticultural Society. While I did not set out with the intention of relating these few facts, nevertheless they may serve to show that this subject, like nearly every other in our gardening profession, has its special literature, and the more we go into the study and discussion of things, the more diverse and interesting we find them. An attorney took up wild flowers as a summer study and pastime, thinking he might soon know nearly all there was to know, but after several months of pretty careful work, he began to feel, as Newton did, that all he had yet picked up was as a few pebbles from the shore. Among the annuals that can be utilized in a scented garden are Marguerite Carnations, Petunias, Mignonette, Heliotrope, Leptosiphon Douglasii, Night-scented Stock, Nicotiana, Sweet Scabious, Verbenas, Sweet Myssum, and also the following plants: scented Pelargonium, Pansies, Roses and Lemon-scented Verbena (Lippia citriodora).

Professor F. A. Waugh, of Amherst, Mass., delivered an interesting address at a meeting at which I had the pleasure of being present last spring, his subject being the advantages, utility and beauty of dwarf fruit trees in gardens. It is safe to say that there are really very few dwarf trained fruit trees in our American gardens. They require constant care and skilled handling, while reliable, well-trained help is scarce. Probably this is the chief reason why this class of ornamental and useful garden fruit tree is absent from our places. All the same, it is a pity it is so, for the lines of espaliers or cordons along the back of the flower borders or dividing the kitchen garden quarters are a very satisfactory sight, good to behold, adding greatly to the garden features.

I was interested in reading recently one of the official reports published by the Department of Agriculture, dealing with trade at the port of Archangel, northern Russia. That report stated that in the northern part of Finland very little ice forms in some of the channels of the sea there, but the White Sea, in which Archangel is situated, becomes solidly frozen; the explanation being that in Finland, which is but a small way to the westward of Archangel, the influence of the Gulf Stream is still sufficient to make the difference between ice-blocked harbors and the opposite. Some folks are prepared to deny that the Gulf Stream has any influence on the climate of Western Europe. They would deny, possibly, that Halley's Comet exists because they have not seen it.

One reason why the New England Coast, especially the northern part of it, is so cold in winter, even although the latitude is further south than that of southern England, is owing largely. I believe, to the Labrador Current, a cold current that comes sweeping down from the Arctic seas, and which heads off, as it were, any good effects that the Gulf Stream might driuse

Not having been at the annual convention of the National Association of Gardeners, and not yet having seen the published accounts of the proceedings, I am unaware of what took place. As a member of the craft and of the association, I earnestly hope that

something was said or done in relation to three chief things, namely: 1, facilities for gardeners acquiring technical education; 2, protection of the bona fide professional gardener against untrained interlopers, thus reducing the status of the calling; 3, provision for sick, disabled, or indigent gardeners—a sort of old age fund. The time seems to be ripe when the whole body of gardeners in this country should unite in this association and fight for certain ideals that are agreed upon by the whole membership. One of the best would be the provision of a fund whereby the needy old men of the gardener's calling could be provided for, or at any rate, they would feel that their last days would not be desolate or in want so long as the association existed. Secondly, the young men should have provision for the intellectual part of their training; this at times now is difficult of realization.

#### "ONLOOKER" ANSWERS "BYSTANDER."

So I have at least one close reader of these discursive notes on "Things and Thoughts of the Garden," one who signs himself "Bystander." I will answer his 'questions as briefly and as well as I can. "Bystander" thinks that in sowing Sweet Pea seeds in the autumn, "the idea is that the seeds remain dormant all winter, as the germinating power of some seeds is improved after being subjected to frost in the ground." I would rather keep my seeds in the bag all winter and place them in a little sulphuric acid in the spring if it were merely a matter of getting "improved germination." Sulphuric acid is now recommended for over-ripened or very hard-shelled Peas, the seeds being immersed for a very brief period in the liquid, when it is found that the testa or outer coat ruptures readily. Sweet Peas are sown out of doors as late in November as possible or practicable to insure germination taking place, yet to prevent more than half an inch of growth. If the plants are sown much earlier than this it has been found by Mr. Kerr at Burpee's trial grounds, and also at Cornell, that too much growth is likely to result, and hard frosts coming, nip the plants back and rot sets in. By the end-of-November-sowing, however, the small stubby growth lies too low to get easily hurt, and moreover, is readily protected with the straw and soil. As regards the root growth, no one could expect lively root action or any action "through the frost-bound winter months;" yet just as all good bulb growers like to plant their tubers in time for the roots to strike far down before the top growth makes much headway, on the same reasoning do the Sweet Pea men sow in autumn. It is on this basis and with the idea in their minds of giving the seedlings the opportunity of "getting away" whenever the weather is at all favorable at any time in the winter and spring, that autumn sowing is practised and advocated. The Sweet Pea is a hardy annual and will bear a great deal of punishment before it succumbs, albeit it will often fail in the winter, but those that come through are so sturdy and deep-rooted, that not only do they flower much earlier than those put out even from pots, but they last longer and better during dry spells, have superior blooms, and on the whole resist insects and disease better. For these reasons autumn sowing is considered worth the time, labor and chances.

"Bystander" then turns to an entirely different matter, the vexed question of plant names. Scholars have told me that plant nomenciature is "anyhow," meaning that there was no uniformity or true agreement

in the terminations, the application of the genders and such like. Perhaps one would have to apply to Max Müller or a Prince Bounaparte, each of them famed etymologists, for an answer, but we of the garden have enough to do without troubling over these very abstruse considerations, interesting though they undoubtedly are. I certainly do not think, "Bystander" (in answer to your question), that plant naming is complete and final as we have it today, and I am not averse to a name being changed if it has been rendered necessary by the introduction of new species which, as we all know very well, fill up previous gaps between other species or even genera, and show them to be co-related members or mere varieties, as the case may be. Sometimes a recasting may be necessary, but I think the time is past when any great amount of this work is actually essential with our chief garden or cultivated genera. But I certainly do strongly object to seeing names—yes, the ones he talks of as having been handed down from father to son-altered for a mere whimsical reason or merely to flatter the vanity of some rising young botanist with a desire to see himself shine in the Annals of Botany, or similar publication as the restorer of some long-lost name, or as the recaster of a genus, thus giving him a chance to rename a couple of species or maybe a whole series of them. For be it remembered these changes can seldom be made without disturbance elsewhere. Believe me. "Bystander." I have seen and heard on this subject more than I would care to state in THE GAR-DENERS' CHRONICLE. In connection with my protest against the useless, harmful, and totally unnecessary changing of the names of well-known garden plants, ask intelligent nurserymen what they think about it, ask the seedsmen who have to keep their catalogs straight, ask the gardener in charge of a large place and who also has the farm to look after, and see what they think of the changing of well-known names. One thing they do think, and that is that they, as the everyday commercial and private users of plant names, have some propriety in them, indeed quite as much as the botanists. Let me conclude with a quotation from a paper or address by Prof. L. H. Bailey, which I have seen, in a contemporary in which he said: "The present situation in nomenclature is a vivid illustration of the failure of arbitrary means of standardization. We should recognize more fully 'the principle of usage' which, in the end, controls all language. We have probably made a mistake in trying to substitute arbitrary priority for stability; at all events, we might have saved ourselves the very amusing exercise of trying to upset well-established names for the purpose of substituting an older one in order that we might make the name staple. It looks as if usage were, after all, to triumph in the end and in some regards quite independently of arbitrary regulations. The principle of undeviating priority has not yet controlled for any length of time in the development of language. It is a false premise. The public has real rights in the names of plants." Perhaps the professor could have said what he had in his mind in a simpler, clearer fashion, but at any rate he says, as your humble scribe does too, that the botanists ought to consider the confusion and harm their name-changing does, which. were it followed, would outweigh the scientific value of it. But they so often change—not once or twice even, but several times. Look up the long string of synonyms that many plants have and ask yourself who's going to try and adopt every new name these systematists chose to adopt. Let's have a name and the author of it and stick to it, change it who will.

## The Profession of Gardening?

By W. W. Ohlweiler, Missouri.

The question mark is intentional and means to call forth the query as to what the profession of gardening if there be such a thing, really is! A profession is something or other that off-hand we have learned to associate with something genteel, as, for instance, law, medicine, theology, politics, etc. One idea of a profession is an occupation that involves considerable education or its equivalent, and requires mental rather than manual labor. Being professional is to our mind a matter of learning, and learning implies more or less an absence of manual labor. But no one for a moment would try to differentiate between gardening and work. Gardening implies work and plenty of it. Are we really justified then in calling gardening a profession? Our dictionary defines gardening as an art having to do with the planning and executing of garden work. In other words it is horticulture, and horticulture is but a part of the large science of agriculture dealing with the more intensive methods of enclosed spaces. Art, however, implies the practical application of knowledge or natural ability, skill, dexterity, facility or power. It may also imply a system of rules devised for procuring some scientific, aesthetic or practical result, i. e., a branch of learning to be studied in order to be applied. On the other hand, we distinguish essentially between the fine arts and the useful arts, the former suggesting largely the exercise of the imagination, and the latter applying to the arts of utility which require chiefly manual labor or skill, and which engage the ingenuity of the artisan. If then gardening is an art and of this, then there hardly seems to be any question, it must be both a fine and a useful art, and one's definition has much to commend it for to repeat, "gardening is an art having to do with the planning and The planning calls for the execution of garden work." display of all those finer qualities of the imagination that are usually associated with the finer arts, while in the execution of the plans that the use of the fine arts have produced, we have every chance to display personally ability and power. Gardening then is not merely an art, but is an art that must be studied and studied well in order to be applied. Since a profession indicates a certain amount of learning we may safely refer to gardenmg as a profession, but it is a profession that calls equally upon the mental and manual faculties of the individual. Just as it is both a useful and a fine art, so it is both a mental and a manual profession. Gardening therefore needs no qualification, it stands in a class by itself and embodies the qualifications of preparation and utility that some professions unfortunately do not. It is not one sided or incomplete, it is a law or an art unto itself. Gardening is an artistic profession!

If we have allowed ourselves too high an ideal for our life's work, i. e., if we have held that true gardening requires something more than mere physique and muscle; if it requires that a man's brain shall labor equally with his muscle power, then we must obviously revise our conception of what a gardener really is. However a gardener may be either a person skilled in gardening, or merely one who tends a garden, but it seems as if a little reflection would show that it is hardly fair to consider the man who merely tends a garden as in the same class with one who is skilled in gardening. The two types are essentially different, and in desiring to make the distinction clear and concise we are only exercising the

same prerogatives as any other profession or trade. Too many men who lack the initiative and ability to plan for the care of gardens claim to be gardeners and unfortunately are regarded as such, simply because they happen to be doing some laboring in and about a garden. And this class of labor does not hesitate to make application for work as gardeners, and feel that having worked in a garden entitles them to consideration as efficient gardeners. A filing clerk would hardly assume to apply for the position of head bookkeeper. The thousands of laborers in and about large engineering projects make no pretensions of being civil engineers. There is as much connection between the average garden laborer and the gardener as there is between the printer's devil and the editor. Let us draw the line at once and for all time. Potting plants, sowing seed, spading beds, trimming hedges are merely phases of garden labor that we might more clearly designate as manual labor, and in this connection we might remember that in a profession and especially an artistic one, manual labor is the result of and not the moving force. Gardeners should be as jealous of the high ideals of their profession as the members of any other profession, and the person who is not qualified by training and experience to assume the planning and execution of garden work, should soon be shown the difference. But lest we place ourselves open to a wrong impression, we must admit that training and experience do not necessarily come through our institution of learning. Experience is the longer school, and without doubt the better one in the long run, but all the experience in the world without the enlightening influence of close study will not make a gardener of any man. Institutions of learning, owing to their system of supplying the results of their experience, have made the long road of experience shorter by many years, but with this help as a starter, there remain many things to learn. Study and training are but short cuts to experience that are the trend of modern education, and it must always be borne in mind that an education in itself is but a poor makeshift to any professional man. Education or experience in itself does not signify nearly as much as the two together. One tempers the other, and in their union there is strength.

Gardening, however, as all other lines of endeavor may have for its specialties any one of which may present sufficient incentive and field for study to take up all of a man's time. But the general field of garden education should be required of any man taking up one of the gardening specialties. We have lawyers who are considered specialists in criminal law, in civil law; we have lawyers who have specialized in law applying to corporations. In botany we have plant physiologists, plant breeders, morphologists, systematists, sociologists and the like. In gardening we have truck gardeners, market gardeners, flower gardeners, florists, foresters and landscape gardeners. With the last we are principally concerned.

Knowing well by this time the emphasis that we have placed upon gardening as a profession, the word landscape in this connection has no more significance than the word truck or market. The gardener is the essential part and the profession of gardening the dominating feature. Landscape gardening merely signifies a specialized form of gardening. We are therefore forced to admit that in the majority of cases the term landscape gardener



COULD ANY BULLAN ARTISTIC MINE PRODUCT THIS NATURE PICTURE, THE WORK OF JOHN MCLAREN IN GOLDEN GATE PARK, 85N URANCISCO: SUOULD NOT GARDENING BLOCKASSED AS A PROFESSION, A SCIENCE AND AN ART?

is not just what it seems. Landscape architect or landscape designer would be more appropriate in every way, since the efforts of the person referred to are devoted mainly to design. In a way there is the same relation between the designer and the gardener as there is between the building architect and the contractor. The two are specialists in their own way. We have the specialties of designing and architecture contrasted with those of gardening and building. But while there is an apparent similarity that may well be kept in mind in many of our dealings with the professional designer there is a difference that should never be lost sight of. A building architect is called upon to work in certain proportions that through custom have been shown to call forth pleasing combination. He may alter these combinations of proportion and balance for certain well defined reasons. He can fix the color harmony fairly definitely because of the material he sees. He can alter existing color schemes as he wills by the use of paint. He can call for texture and for high lights where he wills because his material is inert and susceptible to definite and practically permanent form. The landscape designer works along the same lines as regards proportion, color and texture that the building architect does, but unless he is a rightly good gardener he cannot indicate his materials with the same ease that the building architect does. The building architect's materials are not so numerous, and are not affected by form changes as are plant materials. The building architect calls for red brick and the clay for them may come from Dakota or Louisiana. It matters not. The landscape designer usually calls for a definite shrub or tree that he happens to know will answer the purpose for that locality. When he changes his locality then he must learn his materials anew. And because his time is devoted to the design and ultimate effect primarily, he is not apt to accumulate any wonderful storeroom of knowledge of material. I have often felt that the ideal solution from the gardener's standpoint at least, would be for the artist to design his picture along the lines of some standard of texture and color and height, and then let the gardener indicate the plants to produce certain effects. It is the gardener's business and from his training he is more properly fitted than any one else could be to do the work. However, few designers would have the patience or the ability to carefully design their shrubbery masses along the lines of texture, color and form, and they find it easier to suggest materials from their scant storehouse, when the gardener could, if he could ever find what was really wanted, supply the material best suited to the purpose. It leaves us open to the conviction that plant masses are either monotonous repetitions of common plantations, or else have never been given the attention that they deserve, and it is to be hoped that when the day comes, that gardeners tire of seeing plant material subjected to the indignities of improper association, then the gardeners will insist on knowing what it is that the artist is trying to paint. The picture should be painted from the ideal of the artist. The pic ture should be executed from the knowledge and the vast experience of the gardener.

Specialization is one of the characteristics of any profession, and as noted before has entered largely into that of gardening. However, specialization in phases of gardening has not always required or induced that general training and knowledge of the profession as a whole that has been required of other professions in which college courses and degrees have signified definite lines of study and definite preparation. The tendency of the times is to recognize the distinctive character of gardening and to require of it a preparation that will have a general ten-

dency before specialization does finally set in. The value of this general training along horiticultural and agricultural lines can hardly be estimated, but graduation from the horticultural courses in institutions of good standing should be perquisite, and degrees in gardening should carry as much weight as they do in law, medicine and the like. It is only a question of time when as much thought will be given to preparation for the profession of gardening as for any other profession. Then, too, such general preparation is necessary in order that there shall be the broadness and openness of outlook and thought that should permeate the members of all professions. We should be interested in and in sympathy with the things pertaining to gardening in all fields. Our vision should be broad enough to appreciate the aesthetic or the practical side of a profession. It should be broad enough to be equally interested and conversant with the problems of plant breeding, of botany, of physiology and of entomology, zoology or geology. Narrowness of thought is not compatible with a profession that had its beginnings in the cons before human life began and that has been shaped and formed by all the present and past forces of nature. I ife and the elements have all played their part in gardening, and history has from time to time shaped its course, and today it is as full of the spirit of life and of promises for the future as it has ever been. He is a poor gardener indeed who can fail to be inspired with the reality of his occupation, or who can fail to get from association with it, the purity of thought and the honesty of purpose that should be a part of any natural profession. Broadness of purpose makes us better companions and Letter workers, for association with nature does just that.

But in closing let me add just a word or two in regard to that side of gardening that tends to be in reality manual labor. It seems to me that in the final analysis all things are learned through work. Work may be mental or physical, but either way it is work. However, these things that one learned through practical experience seem to have a firmer grip upon our memories than do those things that are learned mentally. The child learns through association of objects and symbols, through the sense of sight and smell and touch. Being merely told that the stove is hot does not suffice to keep the fingers away, but the pain of contact teaches a lesson that is not forgotten. So in gardening our mental lessons have their value, but the association with real work gives us a knowledge that later on will temper us in our attitude toward the garden laborer. We will also have the security that comes of really knowing how, and the day's work will have more of life in it for the knowing. As success attains our efforts and as the days of real work give place to the forces of supervision and direction there will come to you at times an intense longing to once more get the feel of the soil in your hands, to hoe and spade and to be up and doing. The gardener longs for the intimate association with his work, he must be near nature, but in time he will get to feel that the directive forces of his own mind are accomplishing things through the many fingers of others, and that one little mind with many helpers is doing the work that feeds the millions when they are himory and that gives them comfort when they are in need. Ours is a profession of which we may well be proud, for it gives of itself, and it prospers in the giving. Through life it gives us strength and happiness, and when old age calls us to its border line, it still gives up to us new secrets and new ideas. It is a fountain of eternal youth. It is really "an artistic profession."

 $P=\{c,c\}$  before the convention of the National V country of Cardeners, Horticultural Hall, Boston, Mass., December 9.

## THE ORIGIN AND MEANING OF CHURCH DECORATIONS AT CHRISTMAS

I think there is very little doubt that one of our oldest and most general customs is that of decorating our churches with evergreens, berries and flowers at the season of Christmas. Pre-reformation or post-reformation, writes Joseph Jacob in *The Garden* (English), evangelical times or catholic revival, town or country, made only a difference in degree. Wordsworth, John Gay and Robert Herrick, to mention three poets of different ages whose knowledge of country ways and doings is proverbial; Samuel Pepys and John Evelyn, the diarists of Cromwellian and Stewartian times; the fifteenth century congregation of St. Mary-at-Hill in the City of London (as we know from their own or from other written contemporary evidence); all saw their churches decorated for the brthday of Our Lord, and although it is only a surmise, it is well within the bounds of probability if I suggest that the Venerable Bede, Bishop Swithun, Alban and Martyr, or Becket, the murdered archbishop, must also have seen the same emblems of joy and love when they entered God's House on a Christmas morning. Undoubtedly Holly and Ivy are the two plants which always have been, and which still are, associated more than any others with the Nativity. Although the orderly sequence of appropriate and distinctive decorations for the changing seasons has long been a dead letter, we would feel there was something missing were we to see none of the familiar leaves and trails somewhere in the wreaths or devices of today.

> "The Holy hitherto did sway; Let Box now domineere. Until the dancing Easter-Day Or Easter's eve appeare."

Our own feelings are sufficient to account for the origin of the practice. There is a seemliness in making the external correspond to the inward on occasions of joy and grief. There is something in the fitness of things that connects decorations and best clothes with days of peculiar importance or the entertaining of guests. It is this, for example, which must have suggested the parable of "The Wedding Garment" to Our Lord, and which must have made its meaning so clear to His hearers. Hence we can see why Christmas has always been associated in the minds of Christians with outward signs of joy both in their homes and in their churches. Impossible but that it should be so. Why, though, Holly and Ivy? What gives these two plants their peculiar position, more especially the first? Two explanations are offered: First, it may be a relic of the old heathen festival of the Saturnalia, which happened to be celebrated at Rome about a week before the Christian Feast of the Nativity. At this time friends gave one another branches of Holly as an expression of their goodwill, along with the presents which it was customary to send. What more natural than to transfer ths innocent custom, with its ready-made meaning, to the great festival of the anniversary of Him who came to bring peace on earth and goodwill among men? Or, secondly, its use may have arisen from the practice of the Druids, who invariably hung in and around their dwelling places bunches of Holly or other evergreens, in order that the spirits of the woods might find a shelter when their customary abodes were leafless and when the weather was particularly severe, as it so often must have been about the time of the old Christmas Day.

In judging which of the above suggestions is the more probable, it is well to bear in mind two facts: One, the universal association of Ivy with Holly as appropriate

for Yuletide decorations. Church accounts for 1486 (St. Mary-at-Hill, London) are extant which include "Holme and Ivy at Christmas eve," and for 1524 (St. Martin Outwich, London), which have "Item: for holy and ivy at Chrystmas." This may possibly be a relic of the Saturnalian times at Rome, when there is very little doubt men were apt to drink "not wisely, but too well," and when it is certain Ivy wreaths, with their supposed power of lessening the intoxicating effects of wine, were in much vogue. The other is the strange fact that the only plant which, as far as I know, is now absolutely taboo in church decorations is the Mistletoe, the sacred plant of the Druids, cut with imposing ceremonies and with golden knives and with wide renown for its powers of healing. I am however a little doubtful if this has invariably been so, for John Gay (early eighteenth century), who was intimately acquainted with rural life, distinctly says in one of his poems this was so used; thus:

"Christmas, the joyous period of the year, Now with bright Holly, all the temples strow, And with Lawrell green, and sacred mistleto."

If Mistletoe was ever admitted as equally suitable with Holy and Ivy as part of the Christmas adornment of our churches, then probably the Druid origin is the true one. If, on the other hand, it was not so, then the Saturnalian is the most likely one, more particularly when the association of Ivy with Holly is so universal. Personally, I favor the Roman origin as being on the whole the more probable.

A word in conclusion about the factors in the Christmas decorations. Nowadays we use everything that comes to our hands. Yew, Bax, Laurel, Cupressus and Thuya are more often, I expect, seen than not. But it was not always so. In the days of Herrick the poet (time of Charles I) there was a certain well-defined sequence of plants which were to be used for the different seasons, and there is no reason to suppose that the rota was not strictly adhered to. He thus writes of house decoration:

"Down with the rosemary and bayes, Down with the mistletoe, Instead of holly, now upraise, The greener box, for show.

Then youthfulbox, which now hath grace Your houses to renew Grown old, surrender must his place Unto the crisped yew.

When yew is out, then Birch comes in, And many flowers beside, Both of a fresh and fragrant kine, To honour Whitsontide."

In another poem on the same subject the poet seems to allude to the old idea of the evergreens being originally put up as shelters for spirits:

"Down with the rosemary, and so Down with the baies and mistletoe; Down with the holly, ivie, all Where with ye drest the Christmas hall; That so the superstitious find No one least branch there left behind; For look, how many leaves there be Neglected there, maids, trust to me, So many goblins you shall see."

From this last quotation it seems possible to suggest a third idea as to the origin of this Christmas custom of decorating churches and houses. With regard to the former, it may be that the Holly and Ivy are direct descendants of Saturnalian times, and came to Britain ready-made, as it were, with Christianity; while, with regard to the latter, the decorations may be but the continuation of what was once universal throughout the land in the days of the Druids. This, at any rate, would account for the use of Mistletoe in houses, while it is never found in churches. Gay's assertion, though, wants explanation.

#### THE MISTLETOE

BY WHIARD X. CICIF, ILLINOIS.

The traveler from a more northern region, who hap pens to journey into our Southern States after autumn winds have stripped the leaves from the trees, is likely to observe shortly after he has crossed the Ohio River or passed through the region in our country in the same general latitude, and there is still more or less green in the treetops. At first glance it appears as if, here and there, groups of twigs had failed to conform to the general condition of leaflessness and were still sporting their summer verdure, but a second survey convinces him, especially if he be botanically inclined, that he is getting a view of that famous plant, the mistletoe.

To most dwellers in the South, the mistletoe is no rarity, but to less accustomed eyes, these more or less globular balls of green among the leafless branches are likely to be of more interest. Though we no longer hold the mistletoe in superstitious reverence as a protector from witches, ghosts and demons, and have perhaps cause to doubt its efficacy in certain amusements of the winter holidays, we may still find its curious manner of growth sufficient warrant for more than a passing interest in it.

The common mistletoe, whether European or American, is really a shrub, but it always grows as a parasite on some other woody plant. In Europe it has been found on the walnut, poplar, linden, elm, locust, willow, ash, thorn, pear, apple, mountain ash, oak and almond, as well as upon various species of conifers, and in one instance, at least, it has been found parasitic upon another plant of its own kind. Our native plant is nearly as catholic in its selection of hosts. Both species are fond of trees with soft, sappy bark and thrive best on such specimens. The seeds are covered with a soft and exceedingly sticky pulp which causes them to adhere to the feet and bills of birds that feed upon them, and this substance also serves to attach them to the branches of other trees in the proper position for growth. The cotyledons contain chlorophyl and it is said that the seed will not develop unless it is exposed to the light, an apparent provision of nature to ensure that growth shall not commence until the seed is advantageously situated.

When the mistletoe begins to grow it sends a sucker-like root, called a "sinker," into the soft tissues where wood and bark meet in the body of its host, and takes therefrom part of its nourishment. The fact that its leaves are green shows that it is not wholly dependent upon its host for food, but the green is of a yellowish and sickly hue and of itself proclaims the plant to be a parasite. Since the trees parasitized by the mistletoe annually add new layers of wood and bark to the trunk, in the ordinary course of events the parasite would soon be covered by the increasing bulk of the tree. The mistletoe, however, is too adroit to be so easily overcome, and just as the encroaching wood threatens to bury it, side

roots are sent out which penetrate the bark lengthwise of the stem, and these send out new "sinkers." This process is repeated annually during the life of the plant

The beliefs which were once associated with the mistletoe originated long before the dawn of history. The plant held a prominent place in the Druid rites and was gathered for their winter festivals by a white robed priest who cut it with a golden knife. It was received in a white cloth; to let it touch the ground being counted disastrous. When the priest had given it to the people it was hung up over doors and in other places about the house to keep off evil. From its connection with such heathen rites, its use was long forbidden by the Church. In Norse mythology, the blind Hodur is fabled to have killed that darling of the gods, Baldur, with a spear tipped with mistletoe, it having been decreed at his birth that nothing that grew on the earth should harm him. The other gods combined to bring Baldur to life and the mistletoe was ordered never to work harm again, to which it agreed, provided it was not allowed to touch the earth. Thus we still hang sprays of the plant high at Christmas time as an emblem of peace and good will.

Our mistletoe is one of some four hundred species of the Loranthaceae, most of which are found in the warmer parts of the world. The flowers of our plant are small and insignificant, but several tropical species are more fortunate in this respect, having brightly colored blossoms which are often six inches or more across. The European mistletoe is known to science as *L'iscum album*, while the American plant is Phorodendrom flavescens. All the beliefs and customs which are connected with the mistletoe by right belong to the European species only, but our plant is so like the overseas species that only the scientist would notice the difference. Its use at Christmas time, therefore, may go unchallenged, partly because the scientist usually does not extend his investigations to such untechnical matters as holiday merrymaking, and partly because of the old proverb that "When one has a mind to do a thing, any excuse will answer.'

Edition There a Ring C

#### A Christmas Garland

III RI once was a Maiden, who, all would allow,
Was otherwise blameless of folly,
That couldn't tell holly from mistletoe-bough
Or mistletoe-berry from holly!

III R1 once was a Garland with berries like pearls (It might have been wise to ignore it); The Maiden, who needed a wreath for her curls, Believed it was holly—and wore it.

III KI once was a Youth, unaccustomed to look for Frohish and vormal courses; And still, having studied his botany book, He knew all the plants and their uses.

### HERE once was a nook on a shadowy stair;

And Maiden, and Garland of glory.

And youth were all present, but I wasn't there,

So how can I finish the story?

Copyright Life Publishing Co.

#### POSSIBILITIES IN LANDSCAPE FORESTRY.

By Arthur Smith, Pennsylvania.

(Continued from November.)

Stress has been laid upon the use of native plants for woodland gardening, which, being so numerous and beautiful, renders exotics unnecessary, and the latter as a rule do not fit in with wild surroundings. Of course, there are some exceptions to this, two of which we cannot forbear mentioning; the Water Forget-me-not, Myosotis palustris, and the Foxglove, Digitalis purpurea. The former soon makes itself at home by the side of water, spreading over shallow spots; a position where it has a few hours sun is preferable; and the native habitat of the latter is on the borders of, and open spots in, woods. Both are easily started by seed and rapidly spread.

For the restoration of the native woodland flora, sowing seed is an easy and effective method. The mere scattering of all kinds of seed in an haphazard manner, upon rough ground more or less covered with grass and weeds is, however, of little use. Little patches of ground should be cleared of stones, etc., at intervals, and the seeds systematically sown and covered. Until established, the encroachment of briars or anything undesirable should be guarded against. This way is very convenient when one comes across a plant in some other locality that is not native on his own place, as seed is easier to transport than a plant; this of course presupposes the plant to be bearing seed at the time. It is not at all a bad idea to start a seed bed in the garden for the purpose of growing wild plants that cannot be collected in sufficient quantity. Seedlings treated in the orthodox manner should result in a stock of thrifty plants which would easily transplant into their permanent quarters. In a wild garden once established in the woods and which has had some care, natural reproduction would go on as a matter of course, always provided the selection of plants suit the soil. In the case of a choice or rare species, it is little trouble to make up a small area of ground into a condition to suit the plants.

There is an important point in connection with our subject, which is the putting the woods into a sanitary condition. Necessary drainage, as before mentioned, is one item to be attended to. In woods that have been uncared for, dead trees and limbs will invariably be more or less numerous, harboring insects and fungous pests; therefore from this, as well as the aesthetic, standpoints, they should be removed or burned. Dead branches of small dimensions may be broken up and spread about in the interior, where they will soon decay away and increase the covering of humans.

In woods to which the general public have no access, fires started from the inside are not likely to occur, but if there is any possibility of a fire coming in from outside, provision should be made to guard against it. When woods adjoin those owned by others, a lane should be kept clean between them, which should be either plowed once a year if possible, or the weeds and leaves kept cut and burned. Of course common sense judgment should be exercised in connection with this and other burnings. The estate should be guarded by a stout, tall, woven wire fence, surmounted by one or two strands of barbed wire. Property which is worth going to any expense over is certainly worth proper protection.

The treatment of damaged trees, whether caused by disease, storms, or old age, and which are worth preserving, comes under the head of landscape forestry.

The work in connection with this has recently caused a new profession to spring up under the term Tree Surgery. Like many other new things with money possibilities in them, this profession contains an infinite number of charlatans. I do not say that there are not some expert tree surgeons who thoroughly understand the work of treating the wounds of trees and pruning them from A to Z, but the fact that hundreds of tree owners have been badly bitten and that ninety-five per cent. of those claiming to belong to that profession can only be classed as tree butchers is well known.

There is no secret process connected with tree surgery, and any estate manager worthy of the name should be competent to carry out operations connected with it, without the owner calling in an expert; especially when the majority of the so-called experts know less about it than the estate manager, who admits he knows nothing.

While this article has reached to a greater length than was originally intended, we have merely touched upon the leading principles connected with the subject. The carrying out of details will call for different methods, according to local conditions. The work involved in landscape forestry does not call for any great expenditure of money, and it may be spread over a more or less extended period. In any case, it is better to make haste slowly; taking time to thoroughly study the topography of the woods to be dealt with, so as to open up and make the most of the natural beauties which exist, resting on the assurance that work along the above lines will be permanent not evanescent.

#### IS "LANDSCAPE FORESTRY" A MISNOMER?

December 4, 1915.

Editor, GARDENERS' CHRONICLE:

Will you pardon me if I make a comment concerning an article which I saw in your magazine, November, 1915, entitled "Possibilities in Landscape Forestry"? During the eight or ten years of my experience in connection with Landscape Gardening work, and especially in teaching phases of this subject, I have found that the general public is often misinformed as to the nature of the work. This misinformation comes largely from the incorrect use of terms as shown in the heading of this article on page 495. I often find that students enter in Forestry courses in universities expecting to receive training in professional Landscape Gardening which will prepare them to take the position of superintendent of parks and private estates where the ornamental value of trees is the chief care. Forestry is a subject which treats of the study of the internal structure of plants for the production of the largest amount of good timber and lumber and is almost diametrically opposed to production of an ideal ORNAMENTAL specimen, since it is more important to produce a straight clean trunk to a considerable height from the ground than to produce an attractive ornamental specimen. Ornamentally, we deal with external structures of trees, paying particular attention to the arrangement and balance of limb structure and to the NATURAL shape of a tree, and we prune with the idea of increasing or lightening the shade or to increase the amount of flowers and fruit. In many instances it is desirable to have a tree which branches quite low, especially for lawn shade, and evergreens should always retain their lower limbs as long as possible.

Of course so far as the entomological phase of the work is concerned, or insofar as the principles of tree repair, or surgery as it is sometimes called, are converned,

they may be applied to both Lorestry and Landscape Gardening. It seems to me, however, that we should avoid any confusion of terms as between Forestry and Landscape Gardening in just the same way that we have found it of importance to establish definite generic names for plants.

From my experience in connection with the Department of Landscape Gardening at Cornell, Illinois, and Missouri, and from having discussed this identical question of the conflict and overlapping of the courses in Forestry and Landscape Gardening with such men as Waugh, Robinson, Wilhelm Miller, Geo. Kesler, O. C. Simonds, L. H. Bailey, Schrenck of Biltmore, and a number of others, I find that there is substantial agreement that where it is a question of the ornamental value of plants, either of individual specimens or even small groups of trees, that it should be treated from the standpoint of landscape gardening and not forestry. There is a limited demand for the professional forester in this country, yet the simblicity of the term enables Agricultural Colleges to obtain more funds from their State legislatures for the support of this work than for landscape gardening, hence they can employ a larger teaching force. We thus find that as the number of students who wish to become protessional foresters is particularly limited, the Department of Lorestry has taken over many of the courses which should be offered under Landscape Gardening, but are tryin, to leach them from the forestry standpoint. It is like the doctor who attempts to treat toothacke when he had that his patients are troubled this way more often than by measles.

It is this question of foresters and practical gardeners attempting to do professional landscape gardening that has had a tendency to put this latter work under suspicion.

HORACE F. MAJOR, Missouri.

#### TRANSMIGRATION.

In New Jersey one morning Perkins looked over his tence and said to his neighbor:

"What are you burying in that hole?"

"I'm just replanting some of my seeds, that's all," was the response.

"Seeds!" exclaimed Perkins angrily, "It looks more like one of my hens."

"That's all right," came from the man on the other side of the fence. "The seeds are inside." Exchange.



A B DUKES EXHIBIT AT HORTICULTURAL SOCIETY OF NEW YORK EXHIBITION

The flower, frint and vegetable exhibit from the farm of J. B. Duke, Somerville, N. L. stared by his Garderer, A. V. MacDonald, at the annual Chrysanthemum Show of the Horti ultimal Society of New York, in the Moseum of Natural History, New York City. The exhibit was much appreciated by the visitors to the show and was awarded the society's gold metal. The fountain was banked with Cattleyas, Red. Begonias, Pandanus, and other foliage plants. On either side of the fourtain were displays of the fruit and vegetable products of Duke's Farm, while banked in the background of palms and ferns were large chrysanthemum blooms and beautifully colored crotons.

#### Work for the Month of January

Conducted by Henry Gibson, New York.

#### OUTDOOR OPERATIONS.

Active outdoor operations during the month of January are somewhat limited, but of those that can be performed, the pruning of fruit trees is perhaps the

most important.

The object of pruning a fruit tree is to increase its yield of fruit, enhance its beauty and secure fruit of better quality. For a tree to produce well developed fruit it must have sunshine and air. Therefore when the limbs become so numerous that sunlight is excluded and the foliage so thick that the air cannot circulate freely, then the top must be opened up by cutting out the superfluous limbs.

As to the time of pruning, different authorities hold different views. Some contend that fall and winter when the trees are dormant is the best time. Others just as strongly contend that early spring just as the sap begins to flow is the best time. Personally, we are of the opinion that any nice day in winter is a good time to do the pruning and particularly at this season of the year when

other work is not demanding attention.

All dead limbs should of course be removed. Look over the tree, study it carefully and decide which of the large branches, if any, should be removed to let in the sunlight and air. After you have attended to the large limbs look over the tree for smaller details, cutting out superfluous small growth water sprouts and cut back the terminal growth one-third. Aim to keep the head low and bear in mind that a tree with a moderate top will invariably produce better fruit than one with a very large head, even though the latter is abundantly supplied with sunshine and air circulation.

#### DAMAGE BY MICE.

Every winter much damage is done to fruit trees by mice. This is especially noticeable after very hard winters and heavy snows. The damage is done under the snow, and is not usually detected until spring. A clean, tidy orchard is not likely to harbor many of these pests, since it is among tall grass, weeds, undergrowth and other refuse that they seek shelter. It is found to be an excellent practive to prevent damage to the bark of trees by mice to tramp the snow firmly about the base of each tree. This renders any grass or other material found there unavailable as shelter. Another plan is to pile earth six or eight inches high around the base of the trees. This should be removed in spring.

Still another method, which will kill the mice, is to wash the trunks of the trees with a solution of which paris green is mixed. Portland cement mixed to the consistency of common paint is found to be good for holding the poison. The mixture is applied to the trunk of the

tree with a stiff brush.

#### SPRAYING.

Before passing from the subject of fruit trees we would like to mention the necessity of thorough and systematic spraying if the best results are to be obtained. Fruit tree enemies, both insects and diseases, must be controlled, and spraying is at once the best and most economical way of doing this. It is no longer a mere experiment, it has become and is as important as pruning, cultivating or any other gardening operation.

There are certain essentials of spraying which should not be overlooked, and which we will briefly mention because space forbids us going into details. These are, spray thoroughly—careless, indifferent spraying is worse than useless, and is dead loss. Know why you are spraying. Sprays that control diseases are not effective against insects, hence there are sprays for each. Fortunately, these may be combined and applied at the same time. Spray in time; it is of very little use to spray after the damage is done. Have your material ready before hand, and take time by the forelock. Spray every year. Failure to observe this last essential has led many to doubt the usefulness of spraying at all.

Spraying is a long series of operations, so why not get as much available literature as possible and go thoroughly into the matter during the long winter evenings? It will

prove worth while; try it.

#### THE VEGETABLE GARDEN.

Advantage should be taken of all favorable occasions to proceed with the digging of the vegetable ground, especially if the soil is of a cloggy texture, so as to expose it to the weather. On no account should digging be proceeded with whilst the ground is frozen. To turn lumps of frozen soil into the ground only results in keeping it cold much later in the spring.

Manure may be wheeled or carted on the land that has not been dug during the spells of frosty weather.

The covering should be taken off and air given to cold frames during mild days. Celery should be aired whenever possible

ever possible.

Rhubarb, asparagus and sea kale may be taken into the forcing house as required; also chicory. Lettuce for transplanting later to hot beds may be sown now. For purposes of exhibition, leeks and onions may be sown under glass.

#### THE GRLENHOUSES.

Rambler roses intended for house and conservatory decoration in early spring, should be topdressed with good loam and bonemeal, and started into growth in a

temperature of forty to fifty degrees.

With the advent of longer days roses that have been blooming right along will soon show signs of renewed root action. When this occurs they may be topdressed with bonemeal, sheep manure or other approved fertilizer. A light application of soot will tone up the color wonderfully. Enough to blacken the surface of the soil is all that is required.

Gladiolus may be planted for spring blooming. Poinsettias should be stored under a dry bench. Specimen Lantanas that have had the water supply withheld may now be started into growth. Any that have become too dry and are backward about starting should be placed in a temperature of 65 degrees at night, and syringed freely during bright days.

Cinerarias have been taking stimulants in the form of liquid manure and light topdressing of commercial fertilizers for some time. This treatment should be continued once or twice a week until the flowers show color.

Hyacinths and other bulbs coming into blooms should be placed in a light position near the glass in order to get them as sturdy as possible. Take in another batch of bulbs to keep up a succession.

#### Estate Management and the College Graduate

By MORELL SMITH, New York

A private estate that is conducted for the pleasure and personal satisfaction of the owner is unique in its varied and exacting requirements in the matter of management. In what other vocation is there demanded a larger diversification of attainments? For the interests of an employer one must have knowledge as to building construction, landscape gardening, elemental engineering, horticulture and general farming. Furthermore, executive ability in dealing with men and honesty in handling considerable sums of money are required. Indeed an estate superintendent is called upon to draw contributions from nearly every division of human knowledge and experience in order to secure the repose and real enjoyment desired in a country seat.

From the nature and conditions of the work, it is very doubtful if many graduates of the four year courses in our colleges will be attracted to estate management as a life work. In these colleges there are courses designed to fit a student, let us say, to be an engineer or a dairyman, but I know of none which offers definite training for the position of estate superintendent. This work is both a business and a profession, and technical training would obviously be difficult to secure. Two or three per cent of the total number of estate managers would be a conservative estimate of the present ratio of college men in this line of work within a fifty mile radius of New York City.

The average age of a student upon graduation from a four year course is about 23 years. As preparation for estate management it would seem that an average of five years would be required in the way of practical working experience. A man of 28 or 30 who had this foundation training and experience would, as a rule, prefer to start in for himself rather than give the best years of his life to an employer.

Before a college man should consider this work there are other features which materially distinguish it from the common avenues of employment and which merit careful attention. The field is geographically a limited one. Country places that are large enough to warrant the expense of employing a technically trained manager can only be supported by men of large wealth who usually live within commutting distance of great centres of population. The fact that private estates are not run for gain makes cooperation among employees and between departments much more difficult than in commercial work where all the employees have a mutual dependence upon the financial success of the undertaking.

Finally, the duration and terms of employment are uncertain and varying. Again there is often more or less interference by the employer. A manager may often have to cater to his employer's whims when his own practical judgment would be adverse to certain methods of procedure. These combinations of circumstances, together with a practically unlimited financial backing, are apt to dwarf a manager's ambitious initiative and warp his perspective in such a way as to unfit him for future practical agriculture.

On the other hand, estate management presents an unique opportunity to a certain number of college men who, at the age of 25, will have grasped the training and experience that their average classmate does not secure before 28 or 30. If one can take a college course and early secure a large amount of varied practical experience and knowledge, this work will then form a helpful stepping

stone to his future independent ambitions. In such an instance a young man with these fundamental qualifications could well afford to spend a few years on an estate—preferably on one of the smaller places where he would get in close touch with the details of the work. Having such a field for his activities he could secure invaluable executive experience. In addition he could accumulate capital to start business in a small way along such lines as he might later elect. If a young man so qualified can win the confidence of a considerate employer and can develop the latent possibilities in the place this work becomes very interesting and profitible.

An owner of a country seat maintains such as a place of abode and relaxation after the cares of business. Consequently he desires relief from petty details, neatness in the general appearance of the place and high standard of products. An employer is looking for a superintendent who can secure these results economically, honestly and efficiently.

It would be difficult to master the practical details in the various and complex phases of work that appear in estate supervision. It is rather to be supposed that a college trained man in such a position would be a specialist along certain lines for which his training and experience fit him. It is not to be expected that any manwhether technically trained or not—should have a thorough practical experience in all departments in order to assume management of an estate. For example, a manager might have special training along lines of animal husbandry so as to personally direct the detailed feeding of dairy cows for record production. However, it would hardly be possible for the same man to be equally expert in the details of floriculture so as to win in a flower show. A manager can surround himself with practical men who are efficient in their particular field of carrying out the work along a general plan under his supervision. It is an essential requisite that such men evidence a spirit of cooperation not only with the manager but also between the different departments. If the manager will delegate the details and responsibility to these men at the heads of particularly specialized departments he can then hold them accountable for results.

There are certain phases in the management of country estates for which a technically trained man would seem especially fitted. The average estate which can afford to hire such a man should have a sufficient budget to be spent on the work which his supervision convers. An employer appreciates nothing so much as the satisfaction of knowing that his money is being wisely spent and that he is getting value received for his outlay. A cost system that shows total expenditures in various departments together with a systematized budget are business features that appeal to an employer. A terse monthly report showing how money has been spent; how labor has been employed; what has been done and what has been produced is likewise essential. It helps to keep the owner in close touch with the work and hence enlists his interest and cooperation.

A major portion of the work on a private place is of a routine nature and a careful study and systematization of this will result in general increased efficiency. The administration of an estate involves the application of a large number of new ideas in the practice and science of agriculture to obtain the results the present day employer requires. With the training a college man has had he should be progressive enough to adopt new ideas and yet

\* All rights of publication reserved

conservative enough to discriminate against fads and fancies.

Let us now summarize the essentials of country estate management: An employer desires personal comfort, relief from details and satisfactory results. To meet these demands and execute work economically and efficiently through systematic business methods, science and practical common sense. An executive so qualified and possessing honesty and personal integrity can command a salary commensurate with the service he renders.

"Paper end before the coverties of the National Association of Gassler etc. Homostroph Hall, Boston, Mass. December

#### CULTURAL NOTES ON THE GARDENIA.

BY W. R. FOWKIS, NEW YORK.

The beautiful fragrant pearly white blooms of this charming exotic plant, the Gardenia, truly accords it a place in the first rank of high class greenhouse plants; yet, how seldom do we see a healthy grown batch of plants in the private gardens of the rich.

One is accustomed usually to find, even on large places with the general run of plants in superb condition, the Gardenia frowned upon, because batch after batch has been tried with the usual resulting yellow sickly leaves and buds continually falling off, so that discouragement has caused many gardeners to dispel forever the idea of giving any more space to their cultivation.

These flowers present a charming appearance when properly grown and cared for as they deserve, and are worthy of the best attention any gardener can bestow on them. There is no possible reason whatever why they should not be given the prominence

they occupied a score or more years ago.

Their culture is simple if one or two important points are observed. To begin with, it is essential to get hold of good healthy vigorous stock of young cuttings, which can be inserted in the sand much the same way as roses are propagated. The time for this operation is in December in order to obtain good plants by June 1. Before placing in the sand give them all a dip in a good insecticide solution. You all have your particular kind to use. Water the sand twice a week and keep the bottom heat heady and continuous. In three or four weeks they will be rooted and require potting into 2½-inch pots. Place a crock in the bottom and then a rough piece of leaf soil to prevent clogging of the drainage. This is a very important matter throughout their period of growth, as on this very particular point of drainage the health of the plants depend.

The first compost should be half leaf soil, one-fourth sand, some charcoal dust, and the remainder good loam. Pot fairly firm as they are hard wooded plants.

At this stage of their growth the plants require a light place and sunny bench in a house which never goes below 70 degrees Fahrenheit at night. They must be watered when necessary with the chill taken off the water and syringed each morning, but never have them wet at night, and let the atmosphere of the house be constantly charged with moisture or the red spider will attack them.

Keep potted on until they are in 4-inch pots, and take the point out with the thumb and finger of the leading shoot in order to induce the plants to break.

Gardenias can be successfully grown either in the benches or in pots. I prefer the former, although if a few are grown in pots—6-inch can be used—and they are very serviceable for occasional house decoration. If grown in benches on a large scale it will

repay to replace the tile or wooden bottoms with wire netting one-half inch because more perfect drainage is assured and perfection will never be attained without it.

The compost should now be composed of two parts good fiberous loam, one part rotted cow manure, one part leaf soil, the flaky kind from the leaves of the oak or beech if possible—four inches is sufficient depth—and when the bench is filled a good sprinkling of fine charcoal can be mixed in.

The plants can bet set fifteen inches apart and the soil made firm around each plant and given a good watering from now on with a minimum temperature of 70 degrees Fahrenheit. They will grow rapidly and must be given careful attention as regards to ventilation, because a chill will retard any other effort put forth in their culture.

Damp the floors with manure and soot water twice a week when closing the house at night, and you will notice the advance the plants will make in a short time

The Gardenia requires a large amount of water during hot weather, also constant daily syringing, occasionally the plants will get too wet, or angle worms infest the soil preventing the surplus water being carried away, and to counteract this, having tried every known remedy, the one I now prefer is "Vermine." It is a highly concentrated compound and used as directed, one part to four hundred parts of water, it is cheap and can be safely applied once a week. It will rid benches or pots, no matter what they contain, of all worms or maggots so destructive to the roots of many valuable plants.

Plants set in June will produce flowers in October and disbudding must be resorted to obtain good-sized flowers. As before stated, they are seldom troubled with insects and the mealy bug is the most trouble-some one, but it can be kept at bay during the growing season by spraying regularly once a week with a solution of "Aphine," the best remedy I know.

When pots or benches are well filled with roots they need feeding. Use liquid cow manure once a week and an occasional top dressing of Clay's fertilizer in equal parts of fine loam. Always see that the plants are dried off when in bud before closing down the house.

The variety best suited for early winter blooms is the Cape Jasmine, or Gardenia Veitchii. Gardenia Florida produces larger flowers but does not commence to bloom until the spring.

#### THE 1916 BOSTON FLOWER SHOWS.

The Massachusetts Horticultural Society will hold an increased number of exhibitions in Horticultural Hall, Boston, Mass., during the year 1916. Throughout the summer two shows will be held each month. Four thousand dollars will be awarded in premiums at an exhibition in May, while in November next a very large show is being arranged for. In order that the flower show schedules can be prepared well in advance, the trustees of the society have secured the power to appropriate the necessary funds for prizes three years in advance.

#### THE GARDENERS' CHRONICLE

IS A JOURNAL OF USEFUL TECHNICAL KNOWLEDGE FOR THE ADVANCED AMATEUR.

SUBSCRIPTION, \$1.50 A YEAR.

#### Washington Atlee Burpee

In the passing of Washington Atlee Burpee from this sphere one of God's noblemen has been removed from among our midst. Horticulture has been deprived of a great leader, one whose counsel was always eagerly sought after. A friend of the humble as well as of those more fortunate in this life's good, Mr. Burpee has left a host behind to mourn their loss. The high esteem his friends held him in could not be more fittingly expressed than in the following tribute in an editorial appearing in the Philadelphia North American:

"Though he came to be known as a leader in his line of business, his finest achievement was the cultivation of a nature so thoughtful for others, whatever their place or portion, that everyone who came within his radiance was warmed by it and in some measure inspired to kindlier thinking and do-

"That, in a word, was one of his chief aims in life -to keep as many as crossed his path from the rough road of not enough."

W. Atlee Burpee was born 57 years ago at Sheffield, New Brunswick, coming to Philadelphia at an early age. He was educated in the Friends Central School and the University of Pennsylvania. In 1878 he founded the house of W. Atlee Burpee & Co., which was destined to become the largest seed house of its kind in the world, Mr. Burpee being one of the pioneers in the mail order seed business. His strict integrity and close application even to the smallest details of his business soon gained for him a confidence among his cus-

tomers, numbered in the thousands, which was never shaken. Mr. Burpee's close attention to business did not. however, prevent him from interesting himself in outside affairs. He was an active member of practically all the important horticultural organizations and prominent in the club life of his city.

If all the kind deeds of W. Atlee Burpee toward his fellowman had been recorded he would have been recognized as a great public benefactor, but he did not believe in "letting his left hand know what his right hand doeth."

W. F. Therkildson, who was associated in business with Mr. Burpee, relates an incident which occurred at the meeting of the directors of the Poor Richard Club, to pass resolutions on the death of their fellow member and there one recalled Mr. Burpee's Christmas treat to the poor children. He said, "Some years ago I was lunching on Christmas Eve with Atlee Burpee. He was in a great hurry to return to his office, for there it had been his custom, assisted by his two sons his wife and sister to hand out to the hundreds of poor children of this congested neighborhood, the Christmas boxes of candy or the bright new quarters that brightened the Christmas of these poor kiddies who knew and loved him ,too.

"I asked his permission to view this festival and when we stepped off the trolley car at the Burpee Buildings it was to be greeted by a perfect sea of red caps and dirty faces, but from all, as one, came the glad cry of 'Here he comes, here he comes,' and even the big policemen that

had been detailed to keep these hundreds of children in line, doffed their caps in true affection for this great,

kind man."

This good fellow spoke only too true, writes Mr. Therkildson, for while he talked I, too, had been thinking of the last merry Christmas when he made glad the hearts of this horde of youngsters, and as I write I cannot help but know that when at six forty-five on Friday night, November 26, W. Atlee Burpee was called to leave this earth, he surely heard from that land where poor and rich kiddies rank alike, that same glad cry, "Here he comes, here he comes."

"How fittingly this man's life closes, That like blown petals on the grass, In this sere time of Summer's Roses He, too, should pass!

Light be the churchyard loam above him, And sweet the Spring that he shall know There shall God's blossoms lean to love him. Who loved them so.

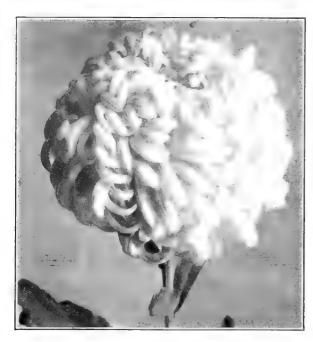


WASHINGTON ATLEE BURPEE.

The toregoing lines, writen of Mr. Burpee, are from the pen of Tom Daly in the Philadelphia Public-Ledger.

#### THE HERO.

He who can find real joy and pleasure In tilling the rough new ground, Or in wielding the hoe or the hammer While others are lying around; He who follows the tunnels of commerce Or digs the deep shaft of the mine, Or who plies the swift shuttle in weaving And never is known to repine; This man is the hero of heroes, The noblest and best of them all; He's the bone and sinew of nations. -Selected. But for him society'd fall.



# NOVELTIES OF 1916



ARTISTA.

ARTISTA A Smith novelty. The introducers believe is the largest exhibition variety they have ever raised, and doubt if it will be surpassed by any now grown, not excepting Wm. Turner, Odessa, etc. White with a slightly creamy tint in the depths.

WM. RIGBY. A Totty novelty. The yellow sport of Mrs. Gilbert Drabble, being an exact duplicate excepting in color. The shade is a beautiful bright canary yellow.

MORRIS KINNEY. A Totty novelty. A beautiful incurving white flower, on the lines of Wm. Turner, but, a week to ten days earlier in blooming.

OGONTZ.

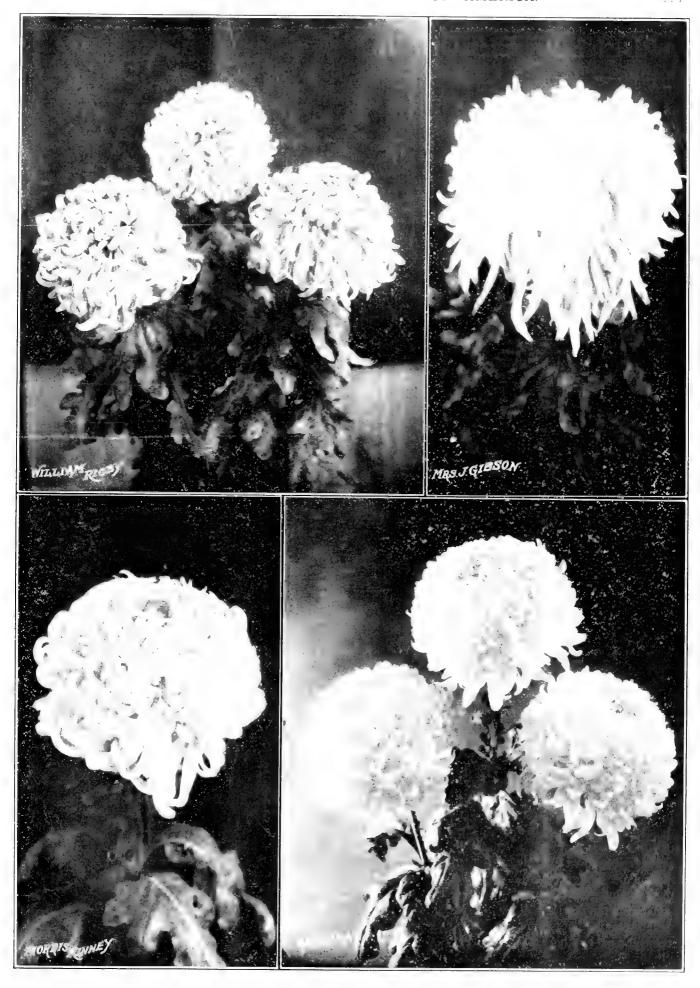
OGONTZ. A Smith novelty. A seedling from Nakota which it greatly resembles in foliage, and has the same whirling arrangement of petals, with size equal to its parent. Color, light primrose. Practically the same as Nakota except color, maturing first week of November.

AUTOCRAT. A Totty novelty. A variety of great promise. Snow white in color; dwarf in growth but robust. Can be flowered for Thanksgiving and Christmas.

MRS. J. G1BSON. A Totty novelty. Large, alike in stem, foliage and flower; light pink in color. Blooms have been exhibited ten and a half inches deep and ten inches across.



ALICE DAY. A TOTTY NOVELTY AN IDEAL EARLY FLOWERING VARIETY. PERFECTLY FORMED BLOOMS OF PURE WHITE COLOR; MEDIUM SIZED FOLIAGE.



THE

#### GARDENERS' CHRONICLE

Published Ly

#### THE CHRONICLE PRESS, Inc.

Office of Publication

286 FIFTH AVE., NEW YORK MARTIN C. EBEL, Managing Editor EDITORIAL OFFICES-MADISON, N. J.

Subscription Price, 12 Months, \$1.50

Foreign, \$2.00

Entered as second class matter Nov. 3, 1914, at the Post Office at New York, N. Y., under the Act of March 3, 1879.

Published on the 10th of each month. Advertising forms close on the 1st preceding publication.

For advertising rates apply to 286 Fifth Ave., New York, N. Y. All editial matter should be addressed to M. C. Libel, Editor, Madison, N. J.

#### OFFICIAL ORGAN OF

#### ASSOCIATION ΟF GARDENERS NATIONAL

President. J. W. EVERITT, Glen Cove, N. Y.

l'ice-President, W. S. RENNIE, Ross, Cal. JAMES STUART, Mamaroneck, N. Y.

Secret: MARTIN C. EBEL, Mals ta N. J.

#### TRUSTELS FOR 1'14.

Peter Duff, Orange, N. J.; William Kleinheinz. Ogontz, Pa.; Wm. Tur-er, Mendham, N. J.; Geo. W. Hess, Washington, D. C.; John H. Dodds.

#### DIRECTORS.

To serve until 1916—Thomas W. Logan, Jenkintown, Pa.; John F. Huss, Hartford, Cohn.; Jas. MacMachan, Tuxe by Park, N. Y.; A. B., het, Deal Beach, N. J.; John W. Jones, Pittsburgh, Pa.; Alexander McPherson, Washington, D. C.; James C. Shield, Monticello, Ill.

To serve until 1917—A. J. Smith, Lake Geneva, Wis.; Theodore Wirth, Minneapolis, Minn.; Wm. Hetrick, San Gabriel, Cal.; Robert Angus, Tarrytown, N. Y.; Robert Bottomley, New Canaan, Conn.; Alex. Fraser, Newport, R. I.; Arthur Smith, Reading, Pa.

To serve as directors for three years, until January 1, 1918—William H. Waite, Yonkers, N. Y.; William N. Craig, Brookline, Mass.; Erward Kirk, Bar Harbor, Me.; John W. Johnston, Glen Cove, N. Y.; Carl N. Fohn, Colorado Springs, Colo.; Peter Johnson, Dallas, Tex.; Thomas Proctor, Lenox, Mass.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

President, EMIL T. MISCHE. Portland, Ore.

ROLAND W. COTTERILL, Seattle, Wash.

J. W. THOMPSON, Seattle, Wash. JOHN F. WALSH, New York, N. Y.

ALEX. STUART, Ottawa, Ont. GRIFFIN

L. P. IENSEN, St. Louis, Mo. EUG. V. GOEBEL, Grand Rapids, Mich.

Vol. XIX.

DECEMBER, 1915.

No. 12.

Boston has long been known among horticulturists as "The Hub of Horticulture," but the visiting gardeners to that city attending the convention of the National Association of Gardeners last week have affixed the word hospitality and hereafter Boston will be known to them as "The Hub of Horticulture and Hospitality." For did not the horticultural interests of Boston and the local gardeners' and florists' club, and the city's officials entertain them as they never were entertained before. Banqueted on the evening of their convention day and shown Boston's Park System, the Arnold Arboretum and some of the prominent private estates in the vicinity of Boston on an automobile trip the following day made the gardeners' stay in that city a memorable one-one long to be remembered by those who enjoyed Boston's genial hospitality.

#### WHY WE ARE PROSPEROUS.

We read that prosperity reigns in different sections of the country. The West is prosperous because "more than a billion bushels of wheat is indicated and more than 1,500,000,000 bushels of oats, record yields both, and more than three billion bushels of corn, only a little below the average."

We read that the South is prosperous because "a relatively reduced crop of cotton is putting the South in funds." Thus we see that prosperity comes from small crops as well as from large, which only goes to prove that finance and financial writing possess intricacies that have no necessary connection with common sense.—Life.

#### Goodby, Old Year, Goodby!

(1) I.D YE.IR, the parting time has come, The time when we must say "Goodby" to you, and shake your hand, And speed you on your way. He'd like to see your stay prolonged, Your time is up, the limit reached, And therefore you must go.

You've been a very friendly year, Considering all things; You've journeyed with us, hand in hand, In all our wanderings. Through days of storm and days of calm You've always with us gone, .Ind oft at night you're with us watched For coming of the dawn.

With you we've seen a winter go And heard the robins sing; Till you we're couldy gazed upon The beauties of the spring. With you we've seen the summer come, In all its wealth of bloom, And with you we have wandered through The gardens of perfume.

With you we saw the autumn tint The leaves in colors bright; .Ind you were with us when the frost Spread wide its deadly blight. And when the winter came again It found you still our friend, Though weary, faint and tottering, And waiting for the end.

Twelve months ago we welcomed you, When you were young and fair, But now your once straight form is bowed, And whitened is your hair. The time has come for you to go, And we can only sigh And shake your hand, and sadly say, "Goodby, Old Year, goodby!"

---Theodore H. Boice.

#### NATIONAL ASSOCIATION OF GARDENERS

JOHN W. EVERITT, President, Glen Cove, N. Y.

OFFICIAL COMMUNICATIONS

Madison, N. J.

#### PROCEEDINGS OF THE ANNUAL CONVENTION BOSTON. MASS., DECEMBER 9, 10, 1915.

The innual convention of the National Association of Gardevers, was held in Horticultural Hall, Boston, on Thursday, December 9. The hall was well filled with an enthusiastic audience. when John K. M. L. Larquhar, president of the Massachusetts Horticultural Society and acting as temporary chairman of the convertion, greeted the assemblage. On Thursday evening the members of the National Association of Gardeners became the guests of the Gardeners' and Florists' (lub of Boston, and the horticultural interests of that city at a banquet in Horticultural

#### OFFICERS ELECTED FOR 1916

WM. N. CRAIG......Brookline, Mass., President. THEODORE WIRTH ...... Minneapolis, Minn., Vice-President. MARTIN C. EBEL .. Madison, N. J., Secretary. JAMES STUART Mamaroneck, N. J., Treasurer.

On Finday as the guests of the park officials of Boston, the visitors were entertained with an automobile trip through the park system, the Arnold arboretum and an inspection of the prominent private estates in the vicinity in Boston, and at luncheon at the Dedham uniseries of R & J. Farquhar & Co.

#### Welcoming the Members to Boston.

In welcoming the visitors to Boston, Mr Farquhar said: Gentlemen and fellow members of the National Association of Gardeners, I want to congratulate you on your good judgment in selecting Boston as the place of your National Convention.

As president of the Massachusetts Horticultural Society, it gives me great pleasure to welcome you under the roofs of our buildings here to a semble for your convention.

This society, perhaps the oldest in the country, which has done more than any organization in the country for the furtherauce and promotion of horticultural work, is glad to have this meeting here. Our society realizes that if horticulture is to be promoted it must be promoted through your instrumentality.

The gardeners are the men that point the way in things hor-You men, representing the foremost element in your eraft, the advance guard of the art of horticulture, have come here to hold your convention, to spread your ideas, to give your knowledge to this, the length and the breadth of our country, not merely for any mercenary motives, but you are interested in the development, in the promotion, in the enlargement of horticultural influence and in instilling the love of the art of horticulture among all of your fellow citizens.

That is why you have come here, gentlemen, and that is why this society welcomes you to this city, which has done so much in the past for northeulture and is doing no less today than it

ever did before,

Is there + y work anywhere in the world to compare with our Arnold arboretum, with our park system, perhaps the finest in the country, but there are two gentlemen here who can tell you more of that than I can, and in welcoming you I am sure that his Honor. Mayor Curley, will tell you something of what Boston does for beautifying and for adding utility to the spaces that we have for the citizens of Boston to breathe in. I take great pleasure in introducing his Honor, Mayor Curley, who has done much for horticulture (Applause.)
Mayor (urley, whose address appears in full in another column.

spoke eloquently or horticulture and its future in Boston.

Mr. Farquhar next introduced Captain John H. Dillon, Chair

man of the Park Commission, who replied in part:

Mr. Chairman, Mr. Mayor and Fellow Gardeners; that is the name that I like best to call you because, notwithstanding his Honor the Mayor raised me to the high dignity of Chairman of the Park and Recreation Department of our city, I was, when he sought me out among the many men in this city, a humble working gardener. Therefore, it is most pleasing to me to address you by the name of fellow gardeners.

Boston is proud of its park system; its park system was made by the gardener. I realize fully the opportunities that the gardeners of today have over the gardeners of the past. We today are simply students of what has passed away. Realizing, in the early history of our profession, ancient Rome built its magnificent gardens opied from the ancient Persians, and from the ancient Persians the ancient Romans, and the ancient Greek, it was brought to England, brought to Italy, brought to France, and brought to Spain, and finally brought here to this country. We have been imitators in the past of all those various styles of gardening, one trying to vie with the other, the English gardening with its solid style, the French style with its intricate pieces, the Italian style with its monuments and its gardens, and all combined here in Boston. We have tried to take the best parts of all and weave them together, and by taking the best parts of the English style, the Italian style, the French style, and the old Persian style, and Weaving them all together, and taking their better parts. I realize, and as every gardener her must realize, that we are working out a distinct problem in gardening today.

Mr. Farquhar next presented the president of the National Association of Gardeners, Mr. Everiti

#### President's Response to Address of Welcome.

President Everitt: Mr. Chairman, and Honorable Mr. Mayor, I thank you on behalf of the members of the National Association of Gardeners for your very cordial welcome. I might say that we gardeners expected it, as we know that Boston, its officials and its people contain a warm heart for everything and everyone that is associated with horticulture.

I am sorry that I cannot respond to you in the eloquent language in which you addressed us, but you may rest assured that your presence before us today and your cordial welcome is much

appreciated by each and every one of us.

Fellow members and friends, I welcome you to our convention, which, I am happy to say, everything forecasts that it will be a notable one, and that we are about to add another chapter to the history of our association, full of encouragement and bright prospects for the future outlook of our association.

Our profession and our National Association in this country are still in their infancy, so far as their mission is concerned on this side of the Atlantic. Our association is attempting much for the benefit of our profession and it will be successful in what it undertakes if we can count on the individual efforts of our members to help carry out what the association strives for.

At our summer meeting at San Francisco in August last, which unfortunately, owing to circumstances beyond my control, I was not able to attend, there were many practical suggestions advanced for the development of our organization, and if acted upon they would soon make the National Association of Gardeners a nation-wide factor in the cause of ornamental horticulture and all that that implies, and so, I wish to recommend for your consideration the carrying out of some of the suggestions referred to.

Our local committee has proven most faithful in the work entrusted to it, and presents to us a most interesting programme for today's session. I trust that what you hear and learn today will prove helpful to you and also that there will be a general participation in the discussions which should arise over the subjects of the very able papers which we are to listen to today, subjects which are of interest to all of us.

As we have much business before us I will not take up much more of your time, but will call on the secretary for the minutes

of the last convention.

The regular order of business followed.

The secretary read the minutes of the 1914 convention, hell in Philadelphia, Pa.

The secretary read his annual report.

#### SECRETARY'S REPORT.

The events of the past year within the National Association of Gardeners have been such as to attract general attention to it from coast to coast, among those engaged in the profession of gardening. The summer meeting held in San Francisco, while not a largely attended one, was successful in developing some suggestions among the members present which are entitled to serious thought on the part of the association with a view of adopting some of

The various committees have been active and have made considerable progress. Their efforts are beginning to be better understood and there is no doubt that they will obtain more individual and collective support in the future than they have in the past in the work that they are endeavoring to further.

A good indication, showing that the association is drawing interest to itself is the number of unsolicited applications that are being received for membership from all parts of the country from men engaged in the gardening profession. A concentrated effort on the part of the members should result in increasing the membership of the association twofold in a comparatively short time. It can be done if the members will bend to it.

On March 19 an executive meeting of the trustees and directors was held in the Hotel Murray Hill, New York City. Wm. Kleinheinz, as chairman of the Committee on Private Growers Exhibits for the Fourth National Flower Show to be held in Philadelphia in March, 1916, under the auspices of the Society of American Florists, extended an invitation to the members of the N. A. G. to participate in this show. The invitation was accepted with the assurance that the N. A. G. would cooperate in every way possible with the National Show next year.

A committee was appointed to devise a suitable design for the association's medal, and it was voted to offer a silver medal at the Chrysanthemum Show of the Chrysanthemum Society of America to be held in Cleveland, and at the special show to be held in San

Francisco in the fall of 1915.

An invitation was received from the American Association of Park Superintendents to have the members of the N. A. G. join the park superintendents on the trip to California in August to attend the summer meeting.

An executive meeting of the trustees and directors was held at the Hotel Martinique, New York City, on Wednesday, July 14. The committee reports all showed good progress. It was voted to send an official communication to delinquent members that unless their indebtedness to the association was paid by September 6 that they would be dropped in pursuance with the by-laws.

The secretary was instructed to draw up a resolution to amend the by-laws to present at the annual convention, to the effect that members two years in arrears for dues, shall be suspended instead

of three years as the by-laws now provide.

The secretary was instructed to acknowledge receipt of the invitation of the American Association of Park Superintendents received at the previous meeting inviting the members of the N. A. G. to join them on their trip to the Pacific Coast and to extend the tlanks of the Executive Committee for the same.

It was decided to hold the annual convention in Boston during

the first week of December.

A meeting of the trustees and directors was held in the Copley Square Hotel, Boston, on Thursday, December 9, to dispose of what business might come before it prior to the holding of the convention.

M. C. EBEL, Secretary.

#### SECRETARY'S FINANCIAL STATEMENT.

Madison, N. J., December 8, 1915.

#### RECEIPTS.

Cash on hand, December 8, 1914 \$83.00	
Dues received for 1913	
Dues received for 1914	
Dues received for 1915	
Dues received for research	
Dues received for rate	
Die membership dues recented	
	\$1,448.00
PAYMENTS.	
Deposit vouchers to treasurer Nos. 85 to 105. \$1,356.00	
Deposit vouchers to treasurer (Reserve Fund)	
Nos. 4-5	
Cash on hand	
	\$1,448.00
Expenditures of the secretary's office for the past	
year have been as follows:	
Stamps \$59.90	
Tolophone calls 8.39	
Telephone cans	
Telegranis	
Trip to Boston for Convention	

M. C. EBEL, Secretary.

-2.05

\$89.30

Boston, Mass., December 9, 1915.

We have completed our audit of the accounts of your secretary up to December 8, 1915, and are pleased to report that we find the statements as rendered above to be correct.

JAMES MacMACHAN, ARTHUR SMITH, JOHN F. HUOS, Auditing Committee.

The treasurer read his annual report.

Sundry expenses .....

#### TREASURER'S REPORT.

Mamaroneck, N. Y., December 8, 1915.

RECEIPTS.

1914.

Dec. 8 Balance in bank (Reserve fund) ....... \$46.00 " 8 Balance in bank (General fund) ....... 697.28

Deposit vouchers Jan. 8, 1915, to Dec. 6, 1915, Nos.	
85 to 105	
Deposit vouchers (Reserve fund) Nos. 4-5 50.00	
Interest to Dec. 15, 1914. 10.05 Interest to June 15, 1915. 14.78	
Interest to June 15, 1915 14.78	
1	2.174.11
1914. DISBURSEMENTS.	
Dec. 26 Jos. I. Gilbert, stenographer 1914 convention " 31 Horticultural Hall, Philadelphia, loss at ban-	\$18.00
quet. etc	72.39
" 31 Madison Eagle, printing	8.50
1915.	
Jan. 2 Chronicle Press, Inc., subscriptions to Jan. 1	54.75
2 M. C. Ebel, secretary, postage and sundries	20.44
2 3. C. Chester, appropriation to secretary's assit.	$\frac{12.50}{13.00}$
April 1 Madison Eagle, printing	15,00
meeting	14.95
" 1 J. C. Chester, appropriation to secretary's ass't.	12.50
" 1 M. C. Ebel, secretary, postage and sundries	15.53
July 1 Chronicle Press, Inc., subscriptions to July 1	510.50
" I J. C. Chester, appropriation to secretary's ass't.	12.50
" 1 Madison Eagle, printing	1.75
" 1 M. C. Ebel, secretary, postage and sundries	11.42
" 1 M. C. Ebel, secretary, postage, duplicate bills	6.50
Sept. 28 Douglas A. Brown, stenographer summer	10.00
meeting	$\frac{16,98}{2.00}$
" 28 Florists' Publishing Company, advertising " 28 Florists' Exchange, advertising	2.00
" 28 American Florist, advertising	2.00
Oct. 1 Madison Eagle, printing	21.50
" 1 J. C. Chester, appropriation to secretary's ass't.	12.50
" 1 M. C. Ebel, secretary, postage and sundries	15.71
" I M. C. Ebel, secretary, postage and sundries	26.20
Dec. 6 Collection charge on check	.10
Total disbursements	\$884.22
Dec. 7 Balance in bank (General fund) \$1,193.89	Φ004.22
" 7 Balance in bank (Reserve fund) 96.00	
1 Balance in bank (Reserve Inna) 30.00	1.289.89
Total	\$2,174.11
10001	, . ,

JAMES STUART, Treasurer.

Boston, Mass., December 9, 1915.

We have completed our audit of the accounts of your treasurer up to December 8, 1915, and are pleased to report that we find the statements as rendered above to be correct.

JAMES MacMACHAN, ARTHUR SMITH, JOHN F. HUSS,

Auditing Committee.

James Stewart, treasurer, after reading his report, said: In addition to that I have a little memorandum which will be of interest to the members, I think. In 1911 the association was somewhat in debt. In 1912 we paid off that debt, and had \$192.97 in the treasury. In 1913 at the annual meeting the amount in the treasurer's hands was \$381.91, and in 1914 we had \$743 in the bank, and today we have \$1,289. (Applause.)

Reports of standing committees was the next order of business.

#### REPORT OF ESSAY COMMITTEE.

The essay contest, for President Everitt's gold prize of \$100, has occupied most of the time of the Committee on Essays and Horticultural Instruction during the year. The contest was arranged in four classes, to which all gardeners engaged in private growing were eligible. It was announced that the contest would close on October 1, and that the decision of the judges would be announced at the convention in December. When the closing date arrived, and it was found that the number of the essays submitted was so small with a number of them not of the standard to be accepted in competition, your committee decided to reopen the contest and continue it until February 1, the successful competitors to be announced in March at the National Flower Show in Philadelphia. In all, essays were received up to October 1.

On horticultural instruction your committee devoted some time early in the year, but on careful investigation found that it would be impracticable to attempt to provide any study courses for members, which would not be entirely under the control of the association. To do this would incur a considerable expense on the association, in the employment of instruction and maintenance of an instructional department, and this in the opinion of your committee, the association is not yet in a sufficiently strong financial position to undertake.

WM. H. WAITE, Chairman, Committee on Essays and Horticultural Instruction.

#### REPORT OF NATIONAL CO-OPERATIVE COMMITTEE.

Co-operation between the National Association of Gardeners and a number of local societies has been brought about, and twenty-one local societies have appointed local co-operative committees to work in conjunction with the National Co-operative Committee which represents the National Association of Gardeners. The suggestion has been made that the association issue an occasional bulletin to its members, but this want seems to be amply supplied by the official organ. That more organization matter does not appear in its columns is due to the committees and members themselves in not supplying the material.

At the solicitation of the Nassau County (N. Y.) Horticultural Society, a resolution from that society was submitted by the National Co-operative Committee to the different local clubs and societies throughout the country, to the effect that a member of a local horticultural society removing to another locality eligible to full membership in the horticultural society in the locality to which he has gone, if he is in good standing, without the payment of dues until the end of the fiscal year.

This resolution has so far been adopted by sixteen societies. The committee is anxious to hear from the different local cooperative committees on any subjects or matter that may be of interest to disseminate among the local societies which have joined in the co-operative movement. The national committee stands in the position of a central source, through which the different local societies desiring to participate should be kept in frequent touch with one another; but this can only be made possible through all concerned taking an active interest in the movement.

> J. W. EVERITT, Chairman. National Co-operative Committee

#### REPORT OF COMMITTEE ON MERITORIOUS EXHIBITS.

As chairman of the Committee on Meritorious Exhibits I submit the following report:

At the meeting of the trustees and directors, held in New York City in July, it was decided to offer the association's silver medal for competition at the chrysanthemum show and supplementary meeting of the Chrysanthemum Society of America, at San Francisco, Cal., for the best six chrysanthemum flowers, six varieties, shown by a member of the National Association of Gardeners.

It was also decided to offer the association's silver medal in competition at the annual convention and show of the Chrysanthemum Society of America in conjunction with the Flower Show at Cleveland, Ohio, for the best six chrysanthemum flowers, six varieties, at both shows and good competition was aroused for the medal.

Percy Ellings, of Menlo Park, Cal., won the medal at the San Francisco show, but the name of the winner at the Cleveland show is as yet unknown to your committee.

By offering the association's medal at various flower shows the association is brought to the attention of the gardeners and of the public and others, and offers an excellent means of publicity. I therefore would recommend that we offer a silver medal at the different shows held by societies during the year 1916 who may desire to accept the same for the most meritorious exhibit shown by a member of the National Association of Gardeners.

WM. KLEINHEINZ, Chairman. Committee Meritorious Exhibits.

#### REPORT OF THE COMMITTEE ON BIRD PRESERVATION.

The committee on bird preservation and propagation was appointed late in February of this year, and its preliminary program of work was outlined in a report published in the GARDENERS Chronicle, May issue.

The chairman of this committee at once secured the co-operation and support of the United States Biological Survey, the National Association of Audubon Societies and a number of other active organizations whose support would be of value. The most courteous and sympathetic responses were received from these sources, and we believe that their co-operation will be of great future value.

In June a similar committee was appointed by the American Association of Park Superintendents to co-operate with our committee. Your chairman immediately communicated with the members of this committee, and received a most hearty response. As a result of this, a joint meeting was called, and held in San Francisco, Cal., on August 19. A report of this meeting was published in the Gardeners' Chronicle, September issue. This meeting was attended by seven of the ten members, and was a very enthusiastic one.

 $\hat{A}_{S}$  the work of co-operation between the two committees has as yet not progressed far enough to report specific results, we are inclined to believe that it would be desirable to have the committee reappointed.

We are particularly indebted to our Secretary, Mr. Martin C. Ebel, for his valuable suggestions and for the space given us in the Gardeners' Chronicle for articles pertaining to this subject. We wish to state emphatically that we need the support, help

and suggestions of the individual members if we expect to accomplish anything worth while; without this support very little progress in the work of your committee is possible.

L. P. JENSEN, Chairman.

Committee on Bird Protection and Propagation.

#### SERVICE BUREAU REPORT.

If the inquiries to the Service Bureau during the past year had been in proportion to the number of applications received for positions, we might feel justified in reporting that the Bureau is performing a noble work,

The purpose of the Service Bureau is becoming well known among gardeners, but its existence is not yet well established among estate owners and others requiring the services of men in the profession. This matter has received the careful attention of the directors during the last year, and the matter of exploiting the Service Bureau on a more extensive scale to acquaint estate owners and others of its facilities was thoroughly discussed. It was suggested that an advertising campaign be begun at once to accomplish the point in view, but after deliberate consideration it was deemed advisable to postpone such action until the organization is in a stronger liminical position as it was shown that a considerable expenditure would be required to properly carry out the plan to properly advertise the service,

One of the prominent Eastern seed firms is advertising the Service Eureau of the National Association of Gardeners in its 1916 catalogue, as a responsible source through which to secure efficient gardeners in their various capacities, and no doubt in another year others will follow this example, as many firms prefer to be absolved from the responsibility of filling positions.

While the bureau was successful in placing some gardeners in positions during the last twelve months, there were, however, many who applied who could not be aided. In instances where gardeners applied for an opportunity to better themselves but were holding positions, advice was given, that under the existing general unsettled business conditions, they cling to the position they held, and in many cases this advice was gratefully accepted.

Inquiries from people seeking capable gardeners at garden laborers' wages, of which a number were received, were replied to, to the effect that the bureau could not serve them, unless they could offer a salary consistent with the services expected,

The Service Bureau solicits the co-operation of members who may hear of opportunities presenting themselves which may aid a fellow-member, by advising the bureau of such opportunities.

M.C. EBEL. For the Service Bureau.

The next business in order was the presentation of resolutions, the following amendment to the constitution and by laws being offered:

Article III, Section 1. The annual dues for active and associate members shall be two dollars a year, due and payable on January first of each year. Members in arrears of dues for more than one year shall be suspended and cannot be reinstated to good standing in the association until their indebtedness to it is paid."

A motion that the by-laws be amended as read by the secretary was unanimously carried.

The secretary read a communication from Mr. Wallace R. Pierson, secretary of the A. M. Pierson Company, Inc., Cromwell, Conn., inviting the members of the association to visit Cromwell.

The invitation was accepted with a vote of thanks.

A communication from A. H. Hews & Company, Inc., was read inviting the members to visit their plant, which was accepted with a vote of thanks.

Mr. James MacMacren: Mr. Chairman and gentlemen. I have a resolution to put before this meeting. It is not anything new, because we all know about it. It is about that remarkable chrysanthemum that was exhibited this fall by Mr. Lewisohn. That chrysanthemum has had great notoriety and publicity; it has had more than we can comprehend. That chrysanthemum is now in the moving pictures, and it has been read about and discussed in Japan, the home of the Japanese chrysanthemum.

In presenting this resolution, I think I ought to say that it is a great thing for any lady or gentleman to take such an interest to advance horticulture as they have done and put it before the public. In Cleveland, Ohio quite a small State in the way of horticulture they came forward and put up the money, I understand, to the amount of \$2,000, to bring that plant before the

I think that horticulture is advancing, when you think of a chrysanthemum plant going to Cleveland and a greenhouse being built on a railroad car, and when they went into the city the police force was brought up to keep the crowds back, and the finest band in Cleveland was brought forward, and with the chrysanthemum on a car, there was horticulture marching along. I think we are making proper strides.

Gentlemen, I want to ask the association to pass a resolution-

to ask the Chair to appoint a committee to commend Mr. Lewissohn, the superintendent of his beautiful gardens, on the integrity and ability he has shown in the promotion of that chrysanthemum.

The resolution was seconded, and was unanimously agreed to. Secretary Ebel: Mr. Chairman, under new business I would like to bring up a matter somewhat similar to Mr. MacMacren's.

year one of the most prominent of amateur gardeners, Mrs. Francis King, brought out a book entitled "The Well Considered Garden." I do not know whether many of you gentlemen have read that book, but a chapter of the book was published in The Gardener's Chronicle. Mrs. King in her book took up the question of the gardener quite differently than it has been handled in the past by those who employ gardeners. Mrs. King in this chapter shows the estate owners and others that they do not appreciate the value of the gardeners' services. Mrs. Francis King is well known throughout the land as a great amateur gardener, and I would like to submit for your consideration whether or not it would not be a nice thing to do to pass a resolution in appreciation of what Mrs. King has done in the interest of the gardener.

Mr. Duncan Finlayson: I wish to say that I read that article, and I appreciated it very much. Mrs. Francis King said the right thing in the right place, and I think we ought to recognize it. I am glad that this matter is brought up here. It is one of the best articles that I ever read about the gardener.

A motion to appoint a committee of three to draw up a resolution to forward to Mrs. King in appreciation of the work done

by her in her book was unanimously carried. President Everitt appointed Mr. Craig, Mr. Finlayson and Mr.

Mr. Arthur Smith: I think what I shall present will come under the head of new business. In fact, it is not very new, because it refers to a matter which has too long been delayed. I am sure that every member of the National Association of Gardeners appreciates to the fullest extent the work which Mr. Ebel has done for us, and we must realize our exceptionally good fortune in having a man of Mr. Ebel's position to come forward and act as our secretary. But up to now I believe that this appreciation has not been expressed in such a manuer as to have it spread upon the records of our association. Therefore, to that end I think we should accord to Mr. Ebel a formal vote of thanks.

Mr. Ebel has done for our profession what no one of us could have done or begin to do for ourselves. In saying this, I do not refer so much to the work that is purely secretarial or office work; that is a comparatively unimportant and small matter. Where we have scored is in the work which Mr. Ebel has done for us outside the office. Those of us who remember the useless nondescript affair called "The Association of Gardeners," which existed previous to this organization and Mr. Ebel taking over the secretaryship, will realize what a tremendous difference there is between the position which our association occupies today compared with what it was then. The position which our association occupies today is second to none in the horticultural world, although it is nothing to what it will be if we all do our duty.

The great growing strength of our association has been proved by the fact that it has had to meet opposition, and the energy and tact with which Mr. Ebel has met the opposition and the other adverse influences has caused our association to emerge

from them stronger than before.

Mr. Ebel is not only giving us a large amount of his time in a thousand ways, attending numerous meetings and conventions at which he must spend his money, but he must also have had to spend on our behalf a very considerable sum in hard cash in traveling expenses alone. It appears to me that the time has arrived when we should consider it derogatory to the position which our association occupies, and therefore derogatory to ourselves as individuals, to any longer permit Mr. Ebel to be out of pocket in this way. And I would like to move that a rising vote of thanks be offered to Mr. Ebel for his kindness in acting as our secretary, and that in the future the secretary be paid out of the funds of the association for all incidental expenses incurred by him in our behalf.

Secretary Ebel: Gentlemen, the matter of personal expense incurred by me in the matter of the business of the National Association of Gardeners I have always borne with pleasure. It has not always been direct expense, because at different places that I was in the interest of the association I would have been anyway. At the last meeting of the Boston Club I made a special trip to Boston and return, solely for the National Association of Gardeners' convention, and I believed that the association in that instance should pay my mileage, and as there is no modesty about me, I rendered a bill for it and it has been paid.

I do not feel that a vote of this kind should be passed. time that I think the association owes me anything, I shall render my bill for it, which is only right, but in regard to any other expense that I have in traveling around and in going to the shows I would prefer to have the matter rest as it has in the past.

I will say, however, that I would like to see the time comewhen the association will be so strong that it can afford to puta man in the position of secretary and pay him an annual salary to devote his entire time to it. There is enough work to keep to devote his entire time to it. There is enough work to keep him busy, and, if loyal, he won't have short hours, either. The proper conducting of the Service Bureau alone will take a great deal of a man's time. When that time arrives I want to see a gardener placed in the position and a proper salary paid to him. I have had much pleasure out of the position besides the labor, and I thank Mr. Smith just the same for his recommendation.

President Everitt: Gentlemen, the next business before us is the nomination and election of officers. The tellers will be Messrs.

Miller, Cruikshank and Collins.

President Everitt: We will receive nominations for president. Mr. Huss: 1 nominate John W. Everitt for the office of president.

President Everitt: Mr. Huss, I think I have already stated that I would not stand to be a candidate a second year. Moreover, I do not think that the presidency should be held more than one year by one individual. It is a national association, and I think it should be shifted from one State to another every year. Therefore, I must decline with thanks.

Mr. Newell: I nominate Mr. W. N. Craig for the office of

president.

man ever lived.

Mr. Collins: I move that the nomination for president be closed. (The motion was seconded and unanimously agreed to.) President Everitt: The next will be nominations for vice-

president.

Mr. William Downs: Fellow-members of the National Gardeners' Association, you have nominated a very estimable gentlemen for president, and it behooves you now to get a pretty good man as a running mate for him. The name that I am going to present to you I know you will all accept. There is no question about the man. He said at one time, Mr. President, "I was born a gardener, and I shall die a gardener." Although he is not holding a position today as a gardener, he is a gardener at heart. I have known him for several years, and every time I meet him I like him better. He was one of the few members of the Society of American Florists who took the trouble to be present at your meeting at Boston at the time of the convention. At that time the members were few and far between, as I remember, but he was one of the few who took his coat off and worked at that meeting. He gave us more encouragement than any other man. The National Association of Gardeners will not honor that man by nominating him to this office, but they will honor themselves. The man whom I wish to put in nomination for the office of vicepresident is Mr. Theodore N. Wirth of Minneapolis. No better

Mr. Huss: I move that the nominations for vice-president close. (The motion was seconded and unanimously agreed to.)

President Everitt: The next will be nominations for secretary. Mr. Downs: Mr. President. I don't think we ought to change secretaries. I am against that policy. We see that policy followed around us today, but I say it is a mistake, especially as we have such a good man. I ought not to be taking so much time on the floor, but I cannot help it. You have a good secretary. He has proved his worth today, and I take great pleasure in nominating Martin C. Ebel as secretary of our association.

Mr. Kennedy: Mr. Chairman, I would like to say in regard to seconding the motion of Mr. Ebel as secretary, that the gentleman who addressed the convention in regard to Mr. Ebel's expense account and salary was perfectly correct. The time has come, gentlemen, when you will have to have a secretary that you will have to pay. Mr. Ebel is the one man in the world today that has done more for the National Association of Gardeners than any other man, barring none. Mr. Ebel is not a gardener by profession, as you all know, and he has put his shoulder to wheel, and he has worked and helped as no other man has helped and worked, as I have seen, and it is my pleasure, I assure you, gentlemen, as a member of the organization, to get up and second the nomination.

A Member: I move that the nominations for secretary be closed. The motion was seconded and ununimously agreed to.)

President Everitt: We will now receive nominations for

Mr. Kleinheinz: I nominate Mr. James Stewart for the office of treasurer.

Mr. Kennedy: I move that the nominations for treasurer be closed.

(The motion was seconded and unanimously agreed to.)

Mr. Kennedy: Mr. Chairman, as there is no competition for the offices to which we have just nominated candidates, I move that the secretary be instructed to cast one ballot for the gentlementhat we have nominated for the different offices in the association.

(The motion was seconded and unanimously agreed to.) Secretary Ebel: I have cast one ballot for Mr. W. N. Craig as president, Theodore N. Wirth as vice-president, M. C. Ebel assecretary and James Stewart as treasurer.

President Everitt: Gentlemen, one ballot being cast by the secretary for those gentlemen, they are duly elected. (Applause.)

Mr. Craig: I nominate Messrs. Peter Duff, William Duckmann

and William Turner of New Jersey, and William Kleinhemz of Pennsylvania and J. F. Huss of Connecticut to the other of trustees.

A Member: I second the nomination.

Mr. Kennedy: I move that the secretary be instructed to east one ballot for the five gentlemen named as trustees.

(The motion was seconded and carried.)

President Everitt next appointed as a committee to pass on the exhibits, Messrs. Kleinheinz, Huss and Popp.

President Everitt: Gentlemen, the next business is the reading

of the essays.

Secretary Ebel: Mr. President, we have a number of essays, excellent papers here. The papers are before us, but the authors of them have not appeared. So I wish you would call for volumteers to read these papers.

President Everitt: Will you kindly oblige us by reading the first paper, Mr. Craig. Centlemen, will you kindly give your

attention to Mr. Craig?

Paper entitled "Is Gardening a Profession?" submitted by Mr. W. W. Ohlweiler, general manager, Missouri Botanical Gardens read by Mr. Craig, and is published in full in another column.

President Everitt: Gentlemen, each member is allowed five

minutes to discuss this essay.

Mr. Robert Cameron: There has been one point that has not been touched on in that paper, I think, and that is, what is the name "Gardener"? A great many gardeners, it seems to me are ashamed of that name. When they get two or three men working under them their name is changed to "superintendent." think if the name isn't good enough for them they ought not to belong to this society. (Applause.)

Mr. Kennedy: Mr. Chairman, I would like to ask Mr. Cameron

if a man can be a superintendent and a gardener, too?

Mr. Cameron: Yes, he can.

Mr. Kennedy: Why change the name?

Mr. Cameron: The first name is good enough.

Mr. Finlayson: Mr. President, in looking over an old Webster's dictionary I happened to come across the name "gardener," and the definition it gave there was "The first gentleman on a gentleman's estate."

Mr. Downs: I don't think we need to quarrel so much about the name as we do about the man. The gardener of today has something else to do besides gardening, Mr. Cameron. I don't something else to do besides gardening, and camerons see why any man should be ashamed of the name "gardener," but we have to do other work and superintend other work. name is "gardener," and always will be, but he has to know something beyond the ordinary garden work in the average place today, and that is where the superintendent comes in, and you must give him some name. The word "superintendent" is nothing delogatory to a gardener. It simply means that he has the overlooking of the other work, and there is no reason why we should be sore about being called "superintendent."

President Everitt: I do not think the gardener calls himself a superintendent from choice very often. I think he is christened that way, and he has to take it. His employer generally calls him a superintendent. It is not what he calls himself, but

that is what he has been christened.

Secretary Ebel: Mr Chairman, in my visits among some of the estates I find that they have superintendents who are gardeners and that the superintendent has a head gardener and a foreman and assistants under him. If the superintendent is to call himself the gardener, what is the head gardener going to be called? It all depends upon the size of the estate, it seems to me, as to

the titles employed.

Mr Vernon T. Sherwood: At one time the head and | o | b establishment called me and said, "Sherwood, I want you to call yourself 'manager,' which is neither superintendent or gardener. To please her I called myself "manager," and to please myself I called myself "head gardener," and to many of my triends I give them my card which reads "gardener," but to her and her friends and business associates I call myself "manager." But the part that appealed to me most was the fact that she handed me the key to the wine cellar. She said, "Sherwood, I also want you to take charge of the wine cellar - I said, "Miss Kirby, I have been waiting four years for that key."

A rising vote of thanks was extended to Mr. Ohlweiler for the

very instructive paper he submitted to the convention.

President Everitt: Mr. Ebel will kindly read the next essay The secretary read paper entitled "The Management of Country Estates: From the Viewpoint of the College Graduate," by Morell Smith, Superintendent of Kiluna Farm, the estate of Ralph Pulitzer, published in another column.

A rising vote of thanks was extended to Mr. Smith for his

very able paper.

Mr. Kennedy: Mr. Chairman, if you will excuse me a minute, I would like to invite everybody here present through the courte-y

of the Gardeners' and Florists' Club of Boston and the horticultural interests of Boston to dine with us tonight in the basement of this hall. The supper will be served at 6 o'clock, and everybody here is welcome to go downstairs and have dinner.

Secretary Ebel: Judging from present indications I think that we can complete our business meeting by a quarter after 6.

Mr. Kennedy: Before I sit down I would like to say that the Committee on Arrangements has arranged an automobile trip through the park system of Boston and some private estates for the visiting members tomorrow, which will leave promptly the Copley Square Hotel at half-past 9.

President Everitt: Kindly give your attention, gentlemen, to Mr. Craig. He is going to read a paper entitled "The Young Gardener's Opportunity in This Country," by Henry Gibson of

New York.

The paper was read by Mr. Craig.

(Mr. Gibson's paper will be published in the January number of the CHRONICIL.

Mr. George N. Smith: Mr. President, that to my mind was a remarkable paper. I agree with every word of it. As between the practical man, the man who has worked up from the potting bench and so-called technical man or college graduate, give me the

practical man every time.

Mr. Cameron: Mr. President, I wish to say that I have probably listened to hundreds of papers in this building, and it is my pleasure to say that the paper which has just been read to this association is probably the best paper I ever heard read. (Applanse.) Mr. Gibson's paper is full of valuable things. We could discuss it for a week, but we haven't the time. The subject he has touched on here we have touched on over and over again. The question of the college graduate has been threshed out at our meetings dozens of times. He has written an excellent paper, and every sentence contains so much in it that we could discuss it for hours, and I move that a rising vote of thanks be given to Vir. Gilson for his able paper

The motion was seconded and carried.) President Everitt: We have another essay.

Secretary Ebel: This paper is entitled "Is Co-operation Betweep Garden Clubs and Gardeners' Societies Desirable?" by William Gray, secretary, Newport Horticultural Society.

(Paper read by the secretary.)

Arthur Smith: It seems to me that co-operation is a thing that we cannot have too much of between all the members of the horticultural world. If the garden clubs can co-operate and will come into touch with the professional side, then each will be benefited by it.

(The motion to extend a vote of thanks to Mr. Gray was sec-

onded and regularly carried.)

President Everitt: The next is the report of the Exhibition Committee.

(The report of the Exhibition Committee was read by Mr. William Kleinheinz, as follows: )

#### REPORT OF EXHIBITION COMMITTEE

REPORT OF EXHIBITION COMMITTEE

Continual, exhibited by W. Downs, Classimit H.II. Mass. Special mention for two W. Downs, Classimit H.II. Mass. Special mention for two specimens. Begonias Lorain, exhibited by Mr. D. Finlayson, Brookline, Mass. Certificate of Culture for a fine display of Calanthas, exhibited by Mr. D. Finlayson, Brookline, Mass. Acts of thanks to W. W. Edgin Company, Mr. Basch, Manager, for display of palms.

Certificate of Culture for a well grown vase of Carnation Alice Centle, exhibited by A. Roper, Tawle sbury.

Certificate of Merit for a vase of Carnation Commonwealth, exhibited by A. Roper, Tewlessimy.

Honorable Mention for a vase of Carnation Morning Glow, exhibited by Edward Winkler, Wask field, Mass.

Certificate of Merit for a vase of Carnation, Miss Teo, exhibited by Edward Winkler, Wask field, Mass.

Certificate of Merit for a vase of Carnation, Grace, exhibited by A. Roper, Tewkeshury, Mass.

Certificate of Merit for a vase of Seedling Carnation, No. 360, exhibited by A. Roper, Tewkeshury.

A certificate of Merit for a vase of Roses, "Mrs. Bayard Thayer," exhibited by Mr. Montgomery, Washin Greenhouses.

Certificate of Merit for three plants of a new type of winter thowering Beromas, consisting of Winter Cheer, Aureana and optima, "exhibited by Mr. Montgomery, Washin Greenhouses.

Certificate of Merit for three plants of a new type of winter Cheer, Curcaina and optima, "exhibited by Mr. Montgomery, Washing O. Winter Cheer, Aureana and optima," exhibited by William C. Rust, Mr. Weld, Gardener, Brookline, Mass.

Certificate of Merit for vase of pulk shapdragon, "Weld Pink," exhibited by William C. Rust, Mr. Weld, Gardener, Brookline, Mass.

Special Mention for a fine collection of Lilium bulbs, exhibited by John Scheepers & Company, Inc., New York, for display of Neophroleps and Spircas.

Vote of Thanks to John Scheepers & Company, Inc., New York, for display of Neophroleps and Spircas.

Vote of Thanks to John Scheepers & Company, Cambridge, Mass. To a display of Pottery.

WM KLEINHEINZ. JOHN T. HUSS, P. W. POPP

President Everitt: I will appoint on the Lewisolm resolution committee James MacMacren, William Downs, William Kleinheinz, Robert Comeron and William N. Craig.

On the Committee of Final Resolutions I will appoint Arthur Smith John Canning and P. W. Popp.

President Everitt: Is there any other business to bring before the meeting? It not, a motion for adjournment is in order.

Mr. Craig: I move that we adjourn, Mr. President.

Secretary Ebel: Mr. Chairman and members, before adjournment I want to make a motion that we extend a rising vote of thanks to our retiring president for the efforts he has put forward in the interests of the National Association and for the great success of his administration.

(The motion was seconded and was unanimously carried by all

members rising.)

President Everitt: Gentlemen, I thank you for your kindness, but I am afraid I have not done very much, but what I have done has been done with good faith. Thank you.

(The motion to adjourn was seconded and carried.) President Everitt: It is so ordered. Adjourned.

#### THE EVENING'S ENTERTAINMENT.

Following the adjournment of the convention, the gathering assembled in the dining room of Horticultural Hall, and became the guests of the horticultural interests and Gardeners' and Florists' Club of Boston. An excellent repast was served, and an entertaining musical program was provided while the inner man was being satisfied. At the conclusion of the meal, Wm. J. Kennedy, of the Arrangements Committee, announced Wm. N. Craig toastmaster of the evening, who, after welcoming the visitors to the festive board, introduced J. M. K. L. Farqubar, president of the Massachusetts Horticultural Society. Mr. Farquhar extended the greetings of that society, declaring that it would always be glad to welcome the N. A. G. within the walls of its buildings. He congratulated the association on its choice for president and lauded the energy and integrity of W. N. Craig. The next speaker was Patrick Welch, president of the Society of American Florists, who tendered the felicitations of the members of the S. A. F. to members of the N. A. G., and spoke of the opportunities in the world of horticulture for both organizations. Capt. John Dillon, chairman of the Boston Park Commissioner, referred to the profession of gardening as the first but also the noblest of all professions. Wm. Kleinheinz spoke on the National Flower Show to be held in Philadelphia in 1916. H. W. Bartsch, president of the Gardeners' and Florists' Club of Boston, responded for that organization, and President J. W. Everitt for the National Association of Gardeners.

A long list of speakers followed, among whom may be mentioned Wm. J. Stewart, editor of Horticulture; Arno H. Nehrling, Professor of Floriculture, Amherst College, Massachusetts; Wm. P. Rich, secretary Massachusetts Horticultural Society; Arthur Smith, John Canning, P. W. Popp, James MacMachau, M. C. Ebel, John F. Huss, Wm. Downs, Duncan Finlayson, Robert Cameron, James Methyen, Wm. J. Kennedy, Samuel Goddard, Peter Fisher, Joseph Manda, James Wheeler, Wm. Nicholson, M. H. Norton and

A. P. Calder.

The praises of W. N. Craig as an able executive was proclaimed by many of the speakers, and that his election to the presidency of the National Association of Gardeners would, it was freely

predicted, bring material growth to the organization.

Some mention is due the committee, and its carefully prepared plans for the entertainment of the visiting gardeners. The horticultural interests of Boston were represented on the committee by Messrs, Farquhar, Roland and Shea. The Gardeners' and Florists' Club of Boston by Messrs, Craig, Finlayson and Kennedy,

#### FRIDAY, DECEMBER 10.

The day following the convention was given up to an auto ride to points of horticultural interest in and around Boston. A party of fifty, piloted by James B. Shea, superintendent of the Boston Park System, started from the Copley Square Hotel, at 10 a. m. Many regrets were expressed that Secretary Ebel's physical condition would not allow him to join the party, he and his son taking

the 10 a, m, train to New York.

Passing down Commonwealth avenue the Fenways and Park Boulevards, beautiful Jamaica Pond, with its placid waters dotted with thousands of water fowl, came in view skirting the shores on the Brookline side. Professor C. S. Sargent's noted estate "Holm Lea" was first visited. There is no attempt here at any artificial gardening; the one hundred and fifty acres of ground are beautifully wooded and of such a rolling nature that fresh surprises are constantly coming into view. Outdoors, the specimen trees and shrubs, including grand collections of rhododendrons and azaleas are noted; while under glass special features are the grand collection of Nerines, Clivias. Azalea Indica, Trachelosperum and standard Wistarias.

The next stop was made at Larz Anderson's, where Duncan Finlayson presides. An inspection of the Japanese and Italian

garden was made. The greenhouses were visited where the roses, carnations, orchids (especially Calanthes), cyclamens, etc., looked well. Refreshments were served and a start was made via Newton street to Falkner Farm, the estate of F. D. Brandegee, where W. N. Craig has charge. A short stop was made to look over the Italian garden, and other outdoor features and enjoy the extensive

Going by way of Centre street, Jamaica Plains, the first call was at the Administration Building of the Arnold Arboretum, where the visitors were cordially welcomed by Messrs. E. H. Wilson and Faxon, of the Arboretum staff. A short stay was made and a hurried inspection made of the splendid library of over 20,000 volumes, principally of a botanical and arborcultural nature, and the collection of dried specimens, woods, etc. Mr. Wilson accompanied the party on a tour of the Arboretum grounds, which cover 270 acres, and where practically every tree and shrub hardy in the northern hemisphere is to be found. A short stroll was made through the collection of 400 varieties of new Chinese plants. At the foot of beautiful Hemlock Hill, the banks of Kalmias and Rhododendrons with their deep majestic, but warm looking background of hemlocks, looked very attractive even in mid December, with the temperature many degrees below freezing and a keen New England wind blowing.

Franklin Park, over five hundred acres in area, was the next place visited. Here the new bird houses and elephant houses were inspected. Leaving here, the route lay via Metropolitan and Blue Hill avenues to the extensive Blue Hill Metropolitan Reservation, many thousand acres in extent, a circuit being made of big Blue Hill. On the home journey the Dedham Nurseries of R. and J. Farquhar & Co. were visited and here an excellent lunch, much appreciated, was served, following which an inspection of the extensive greenhouses was made. Of particular interest were large batches of the charming lavender blue Erlangea Compositae. Large batches of stove, greenhouse and hardy herbaceous stock in pots were noted; also many thousands of seedling rhododendrons, azaleas, piceas, etc.

A hearty vote of thanks, on motion of James Stuart, of Mamaroneck, N. Y., was voted to Messrs. Farquhar & Co. J. K. M. L. Farquhar expressed his pleasure at seeing so many present and hoped he might soon be able to welcome them again. Robert Laurie, the greenhouse manager, and J. Van Leemven, nursery manager, had everything in fine shape here.

The return journey to Boston was made so that the visitors reached the city ere dusk after a very pleasant day of sight-seeing.

#### SATURDAY, OCTOBER 10.

On Saturday morning a number of the visiting gardeners left Boston for Hartford, Conn., where they were met on their arrival by Wallace R. Pierson. After being entertained at a luncheon by Mr. Pierson at the Hotel Bond, the party proceeded by automobiles to Cromwell, Conn., where the exensive growing establishment of A. N. Pierson, Inc., is located. After a number of hours spent in inspecting this mammoth florist industry, where much was found of interest to the gardeners, the members of the party departed in their different directions, all acclaiming the 1915 convention of the National Association of Gardeners the most successful in its history in every particular.

#### REPORT OF COMMITTEE ON FINAL RESOLUTIONS.

RESOLVED. That a hearty vote of thanks and appreciation from the members of the National Association of Gardeners be tendered to Hon. Mayor James A. Curley, of Boston, Capt. John H. Dillon, Chairman of the Park Commission of Boston, J. K. M. L. President Massachusetts Horticultural Society, and Patrick Welch, President Society of American Florists, for the cordial welcome extended to those attending the annual convention held in that city December 9-10.

To the Massachusetts Horticultural Society which so generously provided the facilities within its building for holding the

convention.

To the Gardeners' and Florists' Club, and the horticultural interests of Boston, for the excellent repast and entertainment tendered the members.

To the Park Department and its superintendent, James B. Shea, for the automobile trip through the parks of Boston, the Arnold Arboretum and private estates.

To R. & J. Farquhar & Company for the excellent luncheon

served to the automobile party at their Dedham Nurseries.

To our local Committee on Arrangements, W. N. Craig, Duncan Finlayson and William J. Kennedy, which so ably arranged the affairs of the convention.

ARTHUR SMITH, JOHN CANNING, P. W. POPP, Committee on Final Resolutions.

#### AMERICAN ASSOCIATION OF PARK SUPERINTENDENTS

OFFICIAL COMMUNICATIONS.

EMIL T. MISCHE, President, Portland, Ore. R. W. COTTERILL, Sec.-Treas., Seattle, Washington.

#### FROM THE PRESIDENT.

Within the past five years public recreation administration has undergone a switt and radical transformation. We were told that the old idea of parks being beautiful is antiquated rot, they must be used for tramping on and play of some sort; that park commissioners were not proper officials to administer public recreation and about equally impotent were school boards. New York City and about equally impotent were school hoards. New York City was one taking early action in establishing a "Recreation Commission" to conduct these affairs of social welfare.

A bill was recently passed empowering the commissioners of New York parks, to control all playgrounds and recreational property outside of that under the jurisdiction of the Board of Educa-The Public Recreation Commission approved the action of abolishing its existence.

It is suggested that some explanation of the influences and causes of this action, also the trend of the recreational movement, be discussed in these columns by the principal officials affected by the changes.

It would appear that in the first flush of enthusiasm, some acts of the proponents of social welfare have gone too far and this is the reflex action setting in.

Our ideas on community responsibility for individual well being is ever increasing, broadening and deepening. The more readily we can separate the fads and foolishness always attaching to any landable movement from the real ment the quicker will be our real advance. Let us have light!

#### SUSTAINING MEMBERS.

Superintendent A. A. Fisk, of Racine, Wis., has come forward with a suggestion which is worthy of consideration by every member, regarding securing park commissioners, city officials and others as Sustaining Members in accordance with the new constitutional amendment passed at the San Francisco convention, which makes it possible for any person directly or indirectly connected with or interested in park work, becoming a member of our association as a Sustaining Member, contributing 810 per

Such members will be privileged to attend our conventions as non-voting members, will receive our monthly magazine and other bulletins and publications and will undoubtedly receive from fellow members park reports from all over the country as well as being able to secure information by correspondence, etc., from fellow members.

Mr. Fisk believes that if our members will take hold of this matter that many recruits can be secured and our association strengthened financially and otherwise. He suggests that members who have reason to think that members of their board or commission would join the association, request the secretary to send them a letter setting forth the possibility and desirability of sustaining membership and asking him to bring the matter to the attention of his board. This will give him an excuse to bring the matter up and may help in getting results.

Such a letter has been sent to Mr. Fisk, and the secretary will be glad on request to write such a letter to any member who thinks it will be a help. The president and secretary now have full power to accept and enroll Sustaining Members at any time, so all that is necessary is to send in the name and the money, with the endorsement of a member.

If the association can secure, say 50 Sustaining Members, which is not at all impossible, it would mean that we would be able to issue more valuable bulletins and pamphlets, which would be of. benefit to all.

A quarterly bulletin would be a fine thing, but it is out of the question with our present revenues. Increased revenue means increased usefulness of our organization through a greater dissemination of data.

Here is a chance to help the association and help yourself at the same time. We will publish a Roll of Honor of those who secure one or more Sustaining Members and your officers hope it will be a long one.

The Secretary has on hand at all times a list of members who are either disengaged or on the lookout for a new or better assignment, therefore members who have information as to prospective openings should supply the Secretary with same and he will do the follow-up work.

"It's little for many that one can do, but the many can always help one."

#### IN MEMORIAM.

Following a protracted illness extending over a period of a year

and a half. Chas. G. Carpenter, for eleven years superintendent of the Milwaukee Park Department, died on November 15.

Mr. Carpenter was 57 years of age and was born in Windsor, Wis. He graduated from the University of Wisconsin as a civil engineer, a profession, however, which he never followed. After his graduation he went to Omaha, where he established himself as a landscape gardener, remaining there until 1904, when he went to Milwaukee to take charge of the park system of that city

About a year and a half ago he suffered a stroke of paralysis and this, together with heart trouble and arterial sclerosis, was the cause of his death. During all of his long illness the Park Board of Milwaukee, fully appreciative of his work in that city, held his position open.

He is survived by a widow, two sons and two daughters, and it goes without saying that the sympathy of our membership goes. out to the members of the bereaved family.



CPARILS G CARPINTER

Mr. Carpenter always took an active interest in the affairs of the association, becoming a member in 1908 at the Minneapolissession and afterwards attended the sessions at Harrisburg, Kansas City, Boston and Denver. He had served as vice-president and was usually a member of the important committees which had to do with the shaping of the policies of the association. At the recent San Francisco convention he was given a heavy complimentary vote for president, and had he been present would have probably been elected. In the death of Mr. Carpenter the city of Milwaukee loses a most efficient park executive, and our association loses one of its most respected and valuable members.

#### PERSONAL AND OTHERWISE.

Wm. S. Egerton, after thirty-nine years of service in the Albany, N. Y., park department, has given up the position of superintendent and is devoting himself to consultation work as landscape architect and engineer, which he finds both agreeable and remunerative. Mr. Egerton is a veteran member of our association and was its president in 1904.

Clarence L. Brock, superintendent at Houston, Texas, is a busy man preparing the convention gardens in Sam Houston Park for the 1916 convention of the Society of American Florists and Ornamental Horticulturists

Mr. Brock will undoubtedly be with us at the New Orleans convention, and hopes that many of our members will be able to include Houston in their itinerary.

John D. McEwen, superintendent of Queensborough park department, New York, is the latest victim of the New York City system of changes and reorganization or disorganization, whichever you may prefer to call it.

His position has been abolished and he is to retire on January 1. Mr. McEwen is one of the new members of the association, a man of culture and ability, and made many warm friends while touring

with the convention party last August. In New York he has made a most excellent record as an organizer and systematizer, and it is unfortunate that he is to leave park work in the metropolis. His brief experience in municipal work has convinced him that his former field, that of manager of private estates, is preferable, and he is now on the lookout for such a position and will appreciate information along that line.

Byron Worthen, a veteran member of our association, who has been superintendent of parks at Manchester, N. H., for many years, is now on the retired list, having been the victim of political interference which seems to have invaded staid old New England, Mr. Worthen served for two years as vice-president and was president in 1906. He has been a regular attendant at conventions, has taken a great interest in the association, and hopes to meet with us again regardless of whether he takes up public work again or not.

The proceedings of the San Francisco convention will be published next month and will be sent to all members.

Charles M. Loring writes from Minneapolis that he will be at Riverside. Cal., in charge of Huntington Park in December and for the balance of the winter. Mr. Loring is one of those lucky individuals who is able to spend his winters in California and his summers at his old home in Minneapolis. We fully expected to meet him at the San Francisco convention and have him organize a party to look over the wonderful work he has accomplished at Riverside, but he failed us and we were denied a great pleasure. Mr. Loring is a double member, that is, he was voted an Honorary Membership on account of his public service in moulding the great park system at Minneapolis, and he keeps up an active membership by reason of his desire to contribute to the support of the association and to participate in its councils.

Superintendent J. W. Thompson and Engineer H. L. McGillis, of Seattle, recently completed a study and plan for the improvement of the State Training School at Grand Mound, Wash. Last year they made a plan for the State Capitol Grounds at Olympia, and the Board of Control was so pleased with their work that they are being consulted in connection with the improvement of the grounds of various State institutions.

New York City is certainly attaining a reputation, which can hardly be said to be creditable, of continually changing its park administrative officials. Fully a dozen efficient park executives have been displaced during recent years, largely from political reasons, and each change brings on a general shake-up which naturally results in disorganization.

It is indeed unfortunate that the metropolis of the nation should indulge in such a practice for it should be a model in municipal

The cities of this country which have made the best showing in recreation matters are those which have built up and maintained, absolutely divorced from politics, an efficient park organization.

The following have been dropped from our rolls on account of non-payment of dues, but can again become members by paying full arrears:

John H. Allen, New York; H. A. Allspach, Sacramento: David E. Austen, New York; John Boddy, Cleveland; A. H. Browne, Saskatoon: Frank Brubeek, Terre Haute; G. H. Burgevin, New York; Nicholas Byhower, Salt Lake City; O. W. Crabbs, Muncie, Ind.; Thos, E. Davies, Ottawa: Wm. Donaldson, Buffalo; N. F. Flitton, Baltimore: Fred Gabelman, Kansas City; Joseph Gatringer, New York; W. A. Gorman, Brooklyn; A. J. Graham, Denver; Fred C. Hoth, Jersey City; Richard Iwerson, Calgary; C. R. Jones, Baltimore; J. W. Kernan, Lowell; Samuel Parsons, New York; Felix Riesenberg, New York; Jas, Underwood, Columbus; B. VanderSchuit, Ogden; James Wait, Walla Walla; Chas, A. Whittet, Los Angeles; J. W. Meredith, Toronto; W. C. Niesen, Chicago; W. O. Thompson, Portland, Me.; R. W. Thornton, Denver: J. T. Withers, Jersey (ity.

#### CONVENTION TRIP OF PARK SUPERINTENDENTS.

Continued from November.

Monday, August 30.—At 5:30 a.m. we entered the plains of Utah, where we saw thousands of cattle browsing. Here and there was a little hut, the home of some lonely ranchman—Bunch grass seemed to be the only vegetation for miles and miles. In fact, from 7:30 till 11:30, we saw little else. The soil was composed of considerable alkali and sund. Then we passed through about two miles of red codars and again, the almost bare alkali

plains, with the mountains in the distance. We saw several whirlwinds sweeping across the sandy desert. At 2 p. m. we came in sight of Great Salt Lake, a beautiful body of water. Along the edge were myriads of butterflies. As we approached the city the land for miles was white with salt. We arrived at Salt Lake City about 2:15 p. m. and found that ex-Governor Wells, who is now Park Commissioner, had sent Mr. L. S. Mariger, Transportation Agent, to look after our party, as Mr. Hobday, Park Superintendent, had been called away to fight forest fires. We boarded a sight-seeing bus at the depot and were shown, among other things, Pioneer Park and playgrounds, comprising ten acres; the Mormon Temple, Hotel Utah, containing five hundred rooms, and the State Capitol, a most impressive structure at the head of one of the principal streets, right at the foot of the Wasatch range of the Rockies. The streets are 100 feet wide, with 16-foot sidewalks on either side, and the gutters are flowing streams. The water is afterwards used for irrigation. We next went to Liberty Park, containing 100 acres, presented to the city by Brigham Young, the husband of 19 wives and father of over 40 children. Then we went to the Old Mill, built by Brigham Young in 1852, and to Washington Square, containing 10 acres, in which is located the City Hall. Salt Lake City is 4.260 feet above sea level. At 5:15 we left the city via the Denver and Rio Grande Railroad, through the beautiful Utah Valley, where fruits, vegetables, grains and alfalfa grow in abundance, passing Lake Utah, a fresh water lake. We ran along the River Jordan, which connects the Great Salt Lake and Lake Utah, as the Jordan of Palestine connects the Sea of Galilee with the Dead Sea. From the car window we saw the rugged Wasatch Range and to the westward the blue range of the Oquirrh. As evening came on, with a most glorious sunset reflected on the mountains, we passed the Strawberry Valley Irrigation Tunnel of the U. S. Reclamation Service. At 7:50 we reached the picturesque mountain station of Thistle. Lights began to appear in miners' huts as we climbed to an altitude of 7.454 feet, at Soldiers' Pass, one of the highest stations in the Rockies, through the Red Narrows and the crest of the Wasatch Then down we rushed into the dark of the night, drop-Divide. ping down between three and four thousand feet by midnight, when we crossed the boundary from Utah into Colorado,

Tuesday, August 31.—At early dawn we stopped at Glenwood Springs, where the porter told us of the wonderful hot sulphur springs on Mount Sopris, where the Roaring Fork River empties into the Grand, and where are located extensive bathing pavilions and swimming pools. As the sun lifted its head over the Canyon of the Grand River we began to climb to the Eagle River Canyon. where, from the diner at breakfast, we saw the miners' huts. which seemed to be fastened to the almost perpendicular walls. Up, up, our train climbed, till we reached an altitude of 10,240 feet, at Tennessee Pass, the highest point on the road; then down again, soon entering the Grand Canyon of the Arkansas, where, at Texas Creek, an open observation car was attached to the train, and as many as could crowded into the seats and aisles to witness the most wonderful mountain scenery of the whole trip, through the Royal Gorge, with its red granite walls sparkling with mica, towering to heights of upwards of 2,600 feet in places. One could reach out and touch the jagged sides, almost trembled with fear lest some of the mighty rocks should let go their hold and crush us under their thousands of tons of weight. Yet, with all our fears, the grandeur of the scene fascinated the most timid and brought us to a realization of our own insignificance. After an hour of this wonderful, weird and awe-inspiring scenery, during which we passed over the hanging bridge, the observation car was taken off and we proceeded down, past busy mining camps, cement works and oil wells. We arrived at Pueblo, a city of 50,000 inhabitants, about 4 p. m. We were met by Superintendent Gus Hennenhofer, City Commissioner Thomas A. Duke and a representative of the Pueblo Chieftain. The city has a wonderful irrigation ditch, the water flowing through the streets, fine schools and a court house which is an architectural monument. We had a ride through the city in autos to City Park, Bruner Park, with its beautiful Lake Minnequa, past the iron works and hospital to Mineral Palace Park, and then back to the fine, homelike Congress Hotel, where a delightful dinner was served by the City Fathers. speeches of welcome and thanks in return, we were invited to the home of Superintendent Hennenhofer, where a lawn party was enjoyed. Refreshments were served by the wife and daughter of our host, amid colored electric lights, which made the grounds look like a fairyland. After several hours, all agreed that the day and evening had been one of the most enjoyable we had experienced. We went back to the hotel for a wellearned night of rest.

Wednesday, September 1.—In the morning we were joined by Superinterdent Henvenhofer, his wife and daughter, who proceeded with us to Colorado Springs on the 8:15 a.m. train. The run only took about one and one-half hours, through fertile farm lands. We arrived at the Rio Grande Depot at 9:45 a.m.,

where the car Marion was side-tracked. We were met by our congenial tellow-member, Mr. C. U. Fohn, who had preceded us, to be home in time to arrange for our coming. He was ably assisted by a committee consisting of John Lang, Superintendent of Parks: T. P. McKown, City Torester, Stephen Clarke, Landscape Gardener and the Misses Bartholomew, daughters of the City Treasurer. We embarked in autos to Seven Falls and South Cheyonne Canyon, where we climbed 287 steps and down again. Each of the seven falls dropped almost perpendicularly to the ledges below. Here we saw many donkey parties riding up the canyon on the little, shrewd-looking, sure-footed burros. We were shown Monument Valley Park and the Ute Pass, the only trail through the Rockies known to the Indians for many generations. Away in the distance, towering above all, was Pike's Peak, which lack of time prevented us from visiting. We next went up the Moss Road to Glen Lyrie where eagles' nests in the rocks, and, arriving at the magnificent Palmer Castle, we were treated to a most delicious buffet lunch served by Mr. Fohn's housekeeper, Mrs. Jones. The sideboard in the banquet hall was loaded with great platters of ham roll sandwiches, raw meat and onion rye bread sandwiches, lobster, potato, lettuce and tomato salads, pickles, olives, crackers and cheese, Saratoga chips lengt de offee and beer being the tiquid end of the menu. (This menu is published for the benefit of some of the ladies who expressed a wish to have it? After him been we were shown through the eastle. It contains 114 rooms, all beautifully furnished, and sixteen bath rooms, finished in Delft blue tiling and equipped with most modern fittings. In the octagon belfry, over the studio, the great bell hangs, to call the huntsmen home and to ring an alarm, if necessary. The roof of the eastle is covered with hand-carved tiling taken from an old. dismantled church in England. There is a great ballroom, all oak panelled, with a ceiling 25 feet from the floor and an immense gallery. The estate contains about 5,000 acres, open to the public. General Palmer also presented to the city Monument Valley Park, containing 1.500 acres; Palmer Park and North Cheyenne Canyon. He also built the High Drive, 14 miles long. After inspecting the castle, dancing, bowling and playing billiards. we again entered the autos and away we went over the Ridge Road to Manitou, where the mineral springs are located. We visited Soda Springs and Ute Iron Spring, 6,530 feet above sea level, and all drank treely of the waters, much to the seriet of some and with much joy to others.

Next we went to the celebrated Balanced Rock and through the west gate of the Garden of the Gods, seeing the Ship Rock, the Twins, the Scotch Cap and the Kissing Camels, and then to the Hidden Inn, where the City Fathers had provided a sumptions dinner, served by maidens dressed like Alpine peasants. After dinner we were entertained by a family of Pueblo Indians in their picturesque dress, the children dancing to the song of the old chief and accompanied by the music (?) of the tom toms. Mr. Henry W. Busch thanked the officials in a well-delivered speech, which was responded to by Congressman to B. Schlomridge on behalf of Colorado Springs. Then all boarded the autos for the lottel

Thursday, September 2 First the hotel at 9500 a in for Den The trip was uneventful. We arrived in Deuver at about 12:15 p. m. and were met by the local committee. We were met at the depot, where six autos were waiting. Under the guidance of a very capable committee, consisting of Superintendent of Parks Fred C. Steinhauer; Thomas J. Patterson, of the Denver Athletic Club: H. F. Meryweather, City Engineer: A. H. Coykendall and William J. Kirkman, we proceeded on one of the most enjoyable auto rides of the whole trip, 12 miles, to tolden. passed the lower reservoir and went up the Highland Park Road. winding around and around the mountains in urany hairpin turns to the top of Lookout Mountain, 7,500 feet high. Then we went over a most beautiful plateau, each turn in the road revealing grander scenery of the surrounding mountains and lower lands in panoramie succession. Then we went up and up to the top of he found Old Glory flying in the delight Grijosce Mountain Aberfully dry air, 8,270 feet above sea level. On these mountains is an animal enclosure covering 130 acres, with fields of alfalfa for the herd of twenty-three clk and five buffaloes. Then we descended on the other side, down the canyon through which Bear Creek rushes and leaps amid the rocks and where there nestle many beautiful little summer cottages built of Douglas Fir slabs, in most picturesque style, to the little settlements of Evergreen, Spruce Glen and Ryan's Camp, where over two hundred of the Park Department road workers live in tents. On down the beau tiful glen we rushed, crossing and recrossing the stream as the high, rocky walls forced the road builders to take the line of least resistance. And so down we went for ten miles or more and then out on the plains when, suddenly at a sharp turn in the road, we came across a wrecked auto and fresh, undried blood. indicating a very recent accident. As our chauffeur did not recognize the car, we were assured it was none of our party, although it was very depressing for the time being. We were soon in the city again and through the principal residence street, with handsome homes and grounds. Then we went over the South Platte River and railroad tracks by way of the viaduct, a mile long. Denver coves  $58^3_{-4}$  square miles, has 213,000 population and is 5,200 feet above sea level. Arriving at the depot at 6 p. m. we found we had covered over 52 miles between 1:30 and 6 o'clock. After a fine dinner at the Oxford Hotel we boarded our car at 7 p. m. and pulled out, taking with us most pleasant recollections of Denver, with its rarified air, congenial people and beautiful location amid the mountains. In crossing the prairies during the night the wind howled as if it were winter.

Friday, September 3, 5 a. m. A beautiful, cool morning, found us rushing east through Kansas, with its great stretches of corn fields and many orchards near the prosperous villages and towns, pasture lands, with large herds of cows and droves of horses, fields of alfalfa, oats, wheat and broom corn. Republican River was crossed, with its muddy water flowing down to the Missomi. The cattle here are very large, of the Poled Angus and Herefordshire varieties. The brown, mule footed pigs are seen in great a index. We made some at Large. Goodland, Colby, Norton, Phillipsburg, where the time changes to one hour earlier. On we went, to the Kaw River, another arm of the Missouri. Just outside of the city of Topeka we saw a traction engine drawing a large number of plows. We arrived at Kansas City at 5:50 p. m., two hours late.

We were received by Park Commissioner General Cusil Lechtman, Lantier of Architect George Lakes near, Excentive Officer A. W. Graham, Superintendent of Parks Thomas Callahan and Messrs, Ralph Benedict and Thomas Harrington, of the Park Board. With seven autos we were rushed through the city to all the points of interest, past beautiful homes, arriving at Swope Park, where an outdoor lunch was served. As night had overtaken us, on account of our delayed arrival, it was necessary to use the searchlights of the autos to light the tables. As it was not expected we would be so late no other lights had been provided. Considering the short time we had to spend there, our Kansas City visit was most pleasant, and the committee did all in its power to make our short stay enjoyable, even to liquid refreshments at a fine hotel at 11 p. m., our train not leaving until 11:45.

Saturday, September 4, 6 a. m. A beautiful, cool morning. We rushed through Missouri, along the river of the same name, with rolling country on one side and level farm land on the other, with abundance of hay and corn, and farmers plowing in many places, and signs of prosperity everywhere. We rolled into St. Louis at 8 a. m. We had breakfast in the depot dining room, and were met by Mr. and Mrs. L. P. Jenson, who had left our party in the Far West to hasten home to arrange for our reception. After a short walk we arrived at the City Hall, where we were met by a committee consisting of Park Commissioner Nelson Cunliff, Superintendent Ernest Strohle, R. H. Adeken, Superintendent of Playgrounds; Russell Gibson, of the Construction Department; W. W. Ohlweiler, manager of the Missouri Botanical Gardens, and Mr. Gorge C. Smith

While the ladies were being introduced to the City Fathers, Messrs. Stuart, Gross and McEwen started for the bank in an auto driven by Mr. Smith. As they approached a corner, a trolley suddenly stopped and Mr. Smith was compelled to put on his brakes, with the result that he slid down on the car. At that moment Police Officer No. 1462 stuck out his hand, as a sign to stop, but the momentum carried them on a few feet, then Mr. Officer concluded it was time to make an arrest. So, neglecting the unprotected crossing, he ordered them off to the station house, where Mr. Smith was notified to appear Monday morning in the court for disregarding traffic regulations. Nothing was said, however, about the officer leaving the crossing unprotected for over an hour, when a small piece of paper in the form of a summons would have served the purpose and saved our men folks considerable discomfort.

Eight autos were provided and the profession started for Forest Park, where the chief points of interest were Art Hill, the Jefferson Memorial and the World's Fair Pavilion. Then we went through the beautiful residential section of Portland Place and Kings Highway to Natural Bridge: then to O'Farrel Park and Fair Grounds, consisting of 425 acres, where a pageant is held annually in which ten thousand people participate and from 80,000 to 120,000 attend daily. Next we went to St. Louis Park, containing the largest swimming pool in the United States, then to Jackson and Mullaphy parks, Columbus square and, at 1 o'clock, to the City Club for luncheon. Here we met a number of the public spirited citizens, who entertained us to eats and speeches, Mr. John Blair Edwards, the president of the club, invited our criticism of the city. Mr. Merkel, in response, introduced Mr. Busch as the one man in our party who could make a speech, and afterwards introduced Mr. Stuart for his maiden address. Although it was his first speech, it will long be remembered as one of the warmest criticisms made by our party in any of the cities visited. The applause indicated that it was fully appreciated by both our bosts and our own party. After luncheon, at the

invitation of Mr. August Busch, the celebrated Anheuser-Busch brewery was visited, and each member of the party received a handsome souvenir in the form of a booklet entitled "Epoch Making Events of American History," showing copies of celebrated historical pictures. Then we went to Benton and Gravois parks, South Side Pool, Riverside Drive, 150 feet above the Mississippi, where we saw a number of oarsmen in sculls; then to Carondelet and Tower Grove parks and to the celebrated Missouri Botanical Gardens, presented by Henry Shaw to the city in 1860. Then away we sped again to Forrest Park, where an outdoor luncheon was served at the pavilion of the World's Fair Grounds. After a much-needed rest, the evening lights showing in the city. we proceeded down-town to Carr Park, where we enjoyed several numbers of the band concert and then to Mullanphy Pool, to witness the bathing of the working people, who are unable to enjoy the pools in the day time. Next we went to Hyde Park, where we saw about 2,000 children and 3,000 grown-up people enjoying free moving pictures; then to one of the combination bath houses, where tubs, showers and swimming pool are provided, all gratis, the small charge of one cent for towel, one cent for soap and three cents for the suit, being made if the bather does not provide his own. At 10 p. m. we all got back to the depot for the last leg of our journey. The party divided about evenly, half going north and the balance east. With a hearty farewell to each other and to our kind host and hostess, Mr. and Mrs. L. P. Jensen, our trains pulled out at 11 and 11:05, respectively, homeward bound.

Sunday, September 5. We were awakened in the morning by a great racket. On looking out we found we were at Indianapolis. Ind. There was a freight train opposite our car, from which was being loaded machinery and cattle. The confusion and noise was awful. After leaving Indianapolis we soon got out into the corn fields, and by 11 o'clock we were well into Ohio. At 11:15 we pulled out of Dayton and saw the derricks of many oil wells. we were all very tired, not having gotten to bed until midnight. no one was up early. In fact, several of the party did not get up till nearly noon. As it was raining, everything looked fresh and green. As we passed through Ohio we looked out on delightful rolling country, with wonderful fertile farms and frequent droves of hogs and large herds of cattle. After crossing the Allegheny River at Steubenville, we were soon into Pennsylvania, and the scenery became more beautiful, with fertile valleys and mountains stretching to the north as far as the eye could reach, with majestic wooded hills and here and there bold mountains in the distance to the south, reminding one of our own Hudson Valley more than any scenery we had yet seen. And so the day were on, the rain stopped, and evening came on, bringing with its curtain of darkness an overwhelming desire to sleep. So all retired early, to be awakened by the porter at 6 a. m., who later announced our arrival on time at just 7 a.m.

Monday, September 6.—M. C. Ebel boarded the train at Newark,

and we were all invited to be his guests at breakfast on arrival at New York, which invitation the party accepted. Amid stimulating draughts of coffee, we told of our wonderful trip and its many exciting adventures. After warm adieus we parted for our several homes, to talk and ponder over one of the most delightful trips ever taken by any organization from the Atlantic to the Pacific and return.

This little story is contributed in the hope that all who read may learn that the American Association of Park Superintendents know when, where and how to get enjoyment out of life and with the best of fellowship, to return home realizing that "a man's a man for a' that."

In this issue the story of the adventures of the Park Superintendents and their friends on their convention trip to the Pacific Coast and return is concluded. It was probably one of the most remarkable trips ever undertaken by any organization, offering as it did every opportunity to the travelers to accummulate the knowledge they sought while continuously engaged in the pursuit of pleasure. We are indebted to Mrs. John D. McEwen, of Queens, New York, for the entertaining description of the trip, which was obtained from her interesting diary of the events as they occurred from day to day .- Editor-

As a member of the party that accompanied the park superintendents on their trip to the Pacific Coast and return, I want to express my appreciation of the warm hospitality that was accorded me by the park superintendents enroute and also by the park officials at every one of our stopping points.

I have traveled much and mixed much, but never in my long experience have I come across a body of men who could equal the park superintendents in the genuine good fellowship they manifested during our entire trip, and I wish to thank them for all the courtesies extended to me while traveling with them. E. W. SCHONEBERGER.

#### PROPOSED PARKING SYSTEM FOR ESSEX COUNTY, NEW JERSEY.

Parkways are man made. Their function is to provide traffic facilities with a distinct park character. As such, there are narrow tree lined streets of a boulevard type, broad spacious ways subdivided so as to care for separate lines of travel, like auto, equestrian, commercial, pleasure and pedestrian. They may be narrow to the point of meanness or wide to the extent of being luxurious. Some are formal, others informal; some on rolling slopes, whereas others are on flat planes.

People build according to their ideals, their public spirit and their affluence, And there is always the sham to be seen as an evidence of commercialism attempting to gain the advantage of parkway value on too limited an area.

That a handsome and dignified parkway serves a worthy purpose there can be little doubt; that it is an object for generous community investment is demonstrable. A community inspires admiration of people in proportion to the respect it proves by its work it has for itself. Public works and administration are the common means of displaying that self-regard and refinement.

To discriminate between real excellences and works passing therefor, to point the cost of the different types, the means of securing them in fit locations, and to outline the sections to be traversed and connected by proposed routes, is the purpose of this report. It was written by Mr. J. C. Olmsted, of the firm of Olmsted Brothers, in the course of advising the Essex County Park Commission. A copy was kindly forwarded by Mr. Olmsted.

For more than fifteen years have the Olmsted Brothers been the professional advisors of Essex County in park development. Millions of dollars have been expended there in executing parks, playgrounds and reservation plans of this firm, and later a disposition has become manifest that these properties should be connected by pleasure routes. In the report Mr. Olmsted brings out some novel views, such as proposing electric car routes in the parkways, because they tend to supply the greatest good to the greatest number. Rapid transit considerations, park laws, assessment methods, restrictions on abutting properties are discussed in detail. Another striking feature is the proposal to create, possibly with State aid, rapid transit parkways from the New Jersev mouth of the North River tubes to Essex, Passaic, Bergen and Hudson Counties, involving the congeries of communities on the Jersev side of the river. It is a vast scheme of almost startling scope.

In breadth of vision, in practical conception of future needs and immediate wants, and in the financial capacity to execute them, Mr. Olmsted sustains in this report his former tradition of being a safe, wise, practical, and talented counsellor.

And with these merits plainly discernible by the lay mind, there is a clear evidence of an artist speaking for the creation of beauty.

Altogether, the report clarifies the atmosphere by separating the mists of vague dispelling impressions and heretical procedures, too often attempted in parkway construction, and gives authoritative and clear dictum of public park works, and outlines the returns they bring if developed according to known formulæ and principles.

By this report Mr. Olmsted has accomplished a good work for the nation quite as much as for the Park Commission of Essex County.

Madison, N. J., December 10, 1915.

#### Boston's Mayor for Sunday Recreation in Parks'

Mr. Chairman and Members of the National Gardeners' Association, it is indeed an exceeding pleasure to greet this organization in a building that is dedicated to the profession that you represent—Horticultural Hall. It is singular, however, in the matter of the administration and the development of our park system that it became necessary for the present mayor of Boston to make a 4000-mile journey to discover that the very element most necessary to the proper development of our park system obtained here in our own city. In other words, I visited, like many other Americans during the past year, the Panama-Pacific Exposition and was fortunate enough to be able to visit the San Diego Exposition, and there discovered the most beautiful park that I believe there is in the entire world—the park system in connection with the San Diego Exposition. I, of course, was naturally and extremely desirous of learning who the genius was that laid out the beautiful parking system of San Diego, and I was informed by the vice-president of the San Diego Exposition Commission that it was the Olmstead Bros., of Massachusetts.

I visited Portland, the beautiful rose city of the Pacific Coast, and traveled through their park system, and I said, "Who laid out this splendid park system?" They said, "The Olmstead Brothers of Massachusetts." And I journeyed on to Seattle and made the same inquiry there and received the same answer. then I visited Chicago on the return journey and drove through Lincoln Park, and Jefferson Park, and Washington Park, and Jackson Park, and was astonished at the extent of the area and the beauty and the service that is derived from the park system there in Chicago. I witnessed on a pleasant Sunday afternoon twenty-two ball games in progress at one time, some forty tennis courts in operation at one time, archery and golf and every other sport that is conducive to the health and well-being of the individual.

I came back impressed with the necessity for bringing here into effete Boston the idea that has been so generally accepted in the West for making Sunday a

day of recreation as well as a day of rest.

I was naturally desirous of ascertaining who the genius was that had reclaimed for park purposes such a large extent of the area that was formerly occupied by Lake Michigan, and my informant told me that the Olmstead Brothers had something to do with laving out that system. I had never met the Olmstead Brothers, but when I returned I sent for Captain Dil-Ion, the chairman of our Park Commission, and I said: "Send for the Olmstead Brothers and make a contract with them to go over our park system and make it the best park system in the entire country regardless of cost." And they are now working along those lines, and when, as guests of the Boston members of your organization tomorrow, you will be privileged to ride through the park system you will see some indication and some evidence of their skill and their ability in your chosen profession.

We have begun to realize since they have started operations that a great mass of shrubbery and of flowers is not necessarily conducive either to beauty or utility, and some of the most beautiful stretches of our Fenway, which for years have been hidden from public gaze through this great overgrowth of shrubbery, under their direction has been thinned out, and

it is possible to witness here in Boston those scenes which the old masters have reproduced on canvas for the last hundred years—a vista of a river, a vista of a church in the distance, and the entire picture framed in the most graceful and beautiful shrubbery that is common to our climate here in New England.

It is a very great pleasure to me to come here and to say that we are fully alive to the importance and to the value of our public parks; to say that our park system represents an annual expenditure of more than eight hundred thousand dollars; to say that our contribution to the State parks, in the Metropolitan District, represents an annual expenditure of about four hundred thousand dollars additional; to say that through love of Boston and of the love of God's most choicest gift to man, such fragrant flowers, the product of sunshine and the product of nature, that it has been possible through the generosity of a Boston citizen to make more serviceable and to make more beautiful our park system here; that a Mr. Parkman one of our great citizens, in his will left the sum of five and a half million dollars to the city of Boston for the development and the beautifying of our park system; that that money is being expended intelligently and with a view to beauty and service; that we have a Zoo and an Aquarium that are the equal of those to be found in any section of the entire country, and that we propose at some time in the not distant future to have a horticultural building in Boston in our park system where it will be possible for the general public to enjoy the beauty and the companionship of flowers in the winter time in just exactly the same manner as they are now enjoyed in the summer time.

But everything that can be done is being done to make our system what it should be. We have been exceedingly fortunate in the choice of men at the head of our Boston park system, men who have been affiliated with your organization, men who have been part and parcel of it, for Mr. Galvin was one of the earliest florists in this city and whose name is a household word in the matter of flowers and of everything beautiful of that nature; William Doogue, our present Park Commission; John H. Dillon, and our most companionable Superintendent, "Jim" Shea. They have all been whole-souled men, for, after all, the men who love flowers love children and love humanity, and the service they have rendered in planning wisely and in planning well for our park department is our chief asset and makes possible a higher health record and a lower death rate in Boston than any other one thing

or all other things combined.

We are grateful to the Gardeners' Association for the splendid men they have given us in their chosen profession, and as mayor of the city I trust your stay with us will be one of pleasure to you and one of profit to the community. I trust the same God that under your handiwork develops these choicest productions during your stay will bless your visit with sunshine and happiness.

#### PARK AND PLAYGROUND LEADERS MEET

The first meeting of park superintendents, commissioners and engineers ever held in Lowell, Mass., was held in the aldermanic chamber at City Hall, November 19, when the Park Institute of New England held its fifth meeting of the year, for the discussion of problems in park and playground management.

The principal address of the day was delivered by

<sup>\*</sup>Address before Convention of National Association of Gardeners, Boston, December 9.

James B. Shea, first deputy commissioner of parks, of Boston, who discussed the matter of costs of maintenance, and said that much money may be spent on parks, but something to induce the people to avail themselves of their beauties must be devised to lure them there. Other speakers were John H. Dillon, chairman of the Boston park commission; Joseph McCaffrey, supervisor of playgrounds of Providence, R. I., and George A. Parker, superintendent of public parks, Hartford, Conn. Questions were asked and answered and the discussion was at all times interesting.

George H. Hollister, manager of the Park Institute, introduced Mayor Dennis J. Murphy, who got a lot of applause from the park men.

James B. Shea, deputy park commissioner of Boston,

said, in part:

"It is, of course, to the larger cities of the country that we must look for advanced information on many of the matters which relate to parks and playgrounds. It would not be amiss, therefore, if I should present a few statistics from the great bulk of matter collected during the past few years. The city of Greater New York has a park system comprising an area of 8,600 acres, maintained at an annual expense of \$2,860,442, exclusive of the amounts expended for construction purposes, which, while varying according to the needs, total at least \$1,000,000 annually, in addition to the first mentioned amount. This area reduced to units means an acre to each 642 persons, or 1.56 acres to each 1,000 persons.

"The New York park system had its beginning in 1851. In 1853 a start was made in taking land for what is now called Central Park, embracing as you know all that territory between 50th street and 106 street, longitudinally, and from Fifth avenue to Eighth avenue, an area of 776

acres.

"It is a difficult task to give reliable statistics on the park and playground system of Chicago, as the activities of this great city are divided among a dozen or more separate executive bodies. The total annual expenditure of the community is, however, greatly in excess of \$3,000,000. In this city is to be found the latest word in playground development. In the management of its activities also it has shown the lead and we of other cities

are obliged to pay attention to it.

"Now about Boston's park and playground system. Since 1877, the year of establishment of a park commission, there has been expended \$9,000,000 for land and \$11,000,000 for construction, a total of \$20,000,000. Of this amount \$3,000,000 was spent for the purchase and development of 42 playgrounds. The total area contained in the above is 2,500 acres. In addition there are upward of 80 small parks, acquired previous to 1877, eight beach bath houses and 15 bath and gymnasium buildings open all the year.

"It is not sufficient that we select suitable sites for our parks and develop them on the most artistic lines, or that we furnish a playground with a modern gymnasium and all the facilities for sports, and then say to the public. 'There are your parks and there are your play-grounds, go in and enjoy yourself.' Oh, no, we must devise some way of enticing the public into our carefully prepared

beauty spots."

#### INSECTS ON PARK VEGETATION.

By Frid. C. Green, Rhode Island.

I note by the last issue of our official organ, the president has given us our orders and we must obey to the best of our ability. So I will try and outline our method of checking the insect pests we have no fight.

In Providence parks, during the late fall and winter

months we spray for scale, San Jose being our worst enemy in that line, although ovster shell scale is bad on certain trees, especially young White Ash, Willows, and Lilacs, but the San Jose scale attacks a very large number of shrubs and trees, especially Cydonicas, or Japan Quince, Rosa Rugosa, Cratagas, Cotomasters, Ribes, Malus, and Sorbus, Acuparia or Mountain Ash, which is a beautiful tree in the great cities of Seattle, Wash., and Portland, Ore. We use Scalecide altogether, as it does not discolor the branches like lime sulphur, neither is it caustic if blown by the wind on the hands and faces of men while using same. We find it good for a summer spray if used according to directions. We use it on broad leaved and coniferous evergreens whenever we find scale on same, also for pine louse on pines, and lace fly on Rhododendrons. We also hunt for the eggs of Gypsy Moth and creosote them by using a sponge on long bamboo poles, with ladders for climbing the large trees. I might say we spray with arsenate of lead in spring as soon as the leaves unfold, which takes care of the Gypsy Moth, Brown Tail and Tussock Moths and Caterpillars, also Elm Leaf Bettle, which is our worst pest and disfigures our Elms very badly if not attended to early in the season. We have to keep a sharp lookout for a second brood of this pest which has been known to creep on us unawares and destroy the beauty of some of our best trees before being noticed.

For Brown Tails' nests, it is very necessary to keep plenty of light tree pruners on hand and a number of men who are not afraid to climb. It will keep them busy most of the winter to get the nests if badly infested. We keep men on the ground to pick up the nests as fast as they are clipped off, and these, when collected, are promptly burned.

For the tent caterpillar, it is best to inspect all shrubbery during the winter and as far as possible peel off the nests, which may be found quite readily after one becomes acquainted with the small brown patches, almost like a piece of chewing gum, squeezed around the young shoots; for any that may be overlooked we find the best method is to go at them as soon as the small web is seen and strip them off by hand; this is the surest way to clean them and does not injure the trees like the asbestos torch or kerosene burners, which invariably leave a large half of the caterpillars, which drop from the nest when the heat is first applied. These of course increase and multiply, and it seems that New England roadside beauty will soon become a thing of the past if some means are not adopted to fight this scourge. I see some writers recommend cutting down the wild cherries; if this is done it will rob the poor birds of the one wild fruit they enjoy as much as the cultivated cherries and other fruits; this, of course, will drive them to eat our cultivated fruit, and along will come some one else and propose to destroy the birds, and so it goes. I find that the caterpillars will readily adapt themselves to other foods after they have eaten up all the wild cherry foliage near any given spot, so after the wild cherries are destroyed they will soon find some other shrub or tree to devour in the same manner, and where will it end? Naturally we shall have to destroy all vegetation if we intend starving the caterpillar. I believe the control is simple if the effort is made, but it must be made by all property owners at the same time. When the Gypsy Moth arrives in large numbers this will have to be done or every green thing will be eaten and our beautiful woodlands will be as bare in July as in December. It seems strange that it is so hard to convince people of this fact who havve not seen large colonies of the Gypsy Moth caterpillar at work.

#### Our Native Birds' Protectorate

Under the Direction of the Committees on Bird Preservation and Propagation.
National Association of Gardeners, L. H. Jensen, St. Louis, Mo., Chairman.
American Association of Park Superintendents, Hermann Merkel, New York, Chairman.

#### BIRD PROTECTION FOR EDUCATION AND PLEASURE.

By L. P. Jensen,\* Missouri.

John Evelyn, in his introduction to his "Kalendarum Hortense or the Gard'ners Almanac," published in

London, 1664, says:

"There is not amongst Men a more laborious life than is that of a good Gard'ners; but a labour full of tranquillity, and satisfaction; Natural and Instructive, and such as (if any) contributes to Piety and Contemplation, Experience, Health and Longaevity. In sum, a condition it is, furnish'd with the most innocent,

laudable and purest of earthly felicities."

I believe this applies in equal measure to the gardener of today, particularly to the one who takes full advantage of the various studies required to make him efficient in his profession. The daily contact with nature prevents monotony, and the many new problems in the various lines of study, which constantly appear, to be solved must make our profession a labor of pleasure. An efficient gardener must keep his mind and eye always open to the constantly changing conditions and surroundings.

He must not only know the plants which he grows, cultivates or utilizes in his designs, but he must also know their requirements as to soil, moisture, light, heat and cold, the diseases which affect them, the insects which prey upon them, and those which are beneficial. He must know the form and height of plants at their maturity, whether their growth is rapid or slow, their flowering and fruiting period, and the color, texture and form of their foliage, etc.

He should combine the knowledge of a botanist, an engineer, a chemist, an entomologist and an ornithologist before he may be considered an efficient

all-around gardener.

In the pursuit of these studies he is brought out in the open, healthful air and sunshine, his faculties of observation are becoming more and more keen as he progresses, and the pleasure of new discoveries multiplies and adds to his eagerness for more knowledge.

I believe that if all gardeners could be made to realize and see the many pleasures that might be derived through the pursuance of these studies, essential to our profession, the standard of our proficiency might be raised materially.

To convince you of how much real fun and pleasure there is to be derived out of just one small part of the gardener's study and work, I will take just a few moments of your time to again call your attention

to the subject of bird study and protection.

While the work of protection and propagation of our native birds is a work of national importance, and a work which is given considerable attention by the national government, many state and national organizations, Audubon societies and numerous individuals throughout the country for its economic importance, it is at the same time a work which each individual gardener should engage in for the pleasure and enjoyment which he might derive therefrom.

I know of very few persons who do not admire the beautiful plumage of the cardinal, bluebird or oriole,

or who do not enjoy the wonderful melody of the bobolink, meadow-lark or mocking-bird. Have you ever tried to induce the birds to make their home and rear their broods in your garden or near your home? Do you realize the fun and the pleasure that you and your family and friends might derive from getting better acquainted with our feathered friends? If not, then just try, and you will be richly rewarded.

Now is the time of the year when time might be found for the making of boxes and houses needed to induce many of these valuable and interesting friends

to come and stay with you next summer.

Send for a copy of Farmers' Bulletin No. 609, "Bird Houses and How to Build Them," published and distributed by the United States Department of Agriculture, Washington, D. C., and get busy making homes and shelters for the blue-bird, robin, chickadee, tufted titmouse, nuthatch, wrens, dipper, swallows, martins, song sparrow, house finch, phoebe, flycatcher, flicker, woodpeckers, etc. If you have children, get them interested, let them make and hang their own boxes according to instructions given in this bulletin. Make and put up food shelves at once for the winter birds, supply these shelves with seeds, grain and suet. and be sure to have an abundant supply of fresh water in shallow basins for the birds to bathe and drink. See to it that these receptacles are placed so that cats will have no opportunity to kill the birds, or better, kill the cat if he disturbs the birds. In early spring, place bits of twine, wool and feathers where the birds may find and use them for building their

Having thus prepared yourself for their arrival, and in the meantime derived a lot of pleasure in the good work of preparation, you are ready to receive your guests. The birds will quickly perceive the advantage of accepting your hospitality, as the necessities for their propagation are at hand. You will watch with interest their busy work of making their nests, and when the eggs are hatched and the feeding of their youngsters becomes an arduous performance for the birds you will soon observe, and with a great deal of pleasure I am sure, what a wonderful amount of noxious insects are devoured by a nestful of young birds in a given time. And while you are having no end of fun and gaining valuable first hand information on the life history of birds, the birds are protecting your plants from destruction by insects.

As your interest in the birds increases you will begin to relate your experiences and your fun to your neighbors and friends, and your children will induce other children to take up the work, and the boy who formerly got the birds with a gun will take pleasure in

protecting them from their enemies.

While preparing for the coming of the birds next spring you should write to the secretary of the National Association of Audubon Societies, 1974 Broadway, New York City, who will be glad to advise you as to what literature to procure for helping you in your study.

After studying the life of the birds near your home and having through this experiment become an ardent champion for their protection, you will begin to give some of your spare time to the study of the birds of the fields, woods and meadows in your vicinity. You will soon learn what a close inter-relation exists between the birds, the insects and plants. You will find the birds are the guardians of the woods by their untiring and ceaseless hunting for insect food materials.

Each species of birds seems to be particularly adapted to a certain kind of work and to keep a check on certain species of insects. Some birds, like the woodpeckers and flickers, work on the trunks and branches of the trees, others on the twigs and leaves. The busy quail and the meadowlark work among the grasses of the fields and meadows and the towhee and others in

the shrubby undergrowth.

By studying the habits of our native birds first hand you will probably revise your opinion as to the economic value of some of them. You will probably find that some of the birds which you have formerly condemned for robbing you of a few grains or some fruit, really are paying for this many times over by the noxious insects which they consume; and you will also learn from this study that by planting wild fruit-bearing trees and shrubs you might give these birds a fruit diet without any trouble or cost, and you will find that an intelligent study of this kind will lead you to encourage masses of native growth on your premises for the protection of the birds and the orchard. This study will carry you still further into the field of investigation and you will become interested in the preservation of our native plants for the pleasure and protection they will afford yourself as well as the birds. Economic ornithology is the study of the value of birds as counted by dollars and cents, and it is very convenient and helpful to the cause of the preservation and propagation of our native birds that we can prove that their protection means the saving of money. It should not be necessary, however, to use this low standard as a means of interesting the American gardeners on this subject.

The gardener should know that his profession, while in most cases not the most remunerative, is the most interesting, instructive and healthful of all professions, full of open-air life, sunshine, flowers, and not

to forget, birds.

When the gardeners generally come to realize this, then there will be no need of urging them to come forward with a helping hand in the work of preservation and propagation of useful birds, and their work in this direction will be nation-wide and effective.

In conclusion I wish to say that this paper has been written as an appeal to the individual member of the National Association of Gardeners to give his personal attention and support to this movement, not alone because it is worth while from an economic point of view, but because there is no more interesting chapter in the book of nature than that one given to the fascinating study of bird life.

#### CHARITY AND PRUDENCE.

"The contradictions of life are many," said the philosophic clubman. "Recently I came upon a drinking fountain in a public park which bore two conflicting inscriptions. One, the original inscription on the fountain, was from the Bible: 'And whosoever will let him take the water of life freely.'"

"Above this hung a placard: 'Please do not waste the water." - Exchange.

#### GARDEN CLUB OF ALLEGHENY COUNTY, PA.

The annual meeting of the Garden Club of Allegheny County was held on Friday afternoon, November 26, at the home of Mr. and Mrs. Finley Hall Lloyd, near Shields, Sewickley, Pa. The election of officers for the coming year was held, resulting in the following: Mrs. Lloyd, president; Mrs. James D. Hailman and Mrs. W. Henry R. Hilliard first and second vice-president, respectively, and the re-election of the old Board of Managers composed of Mrs. Lloyd, Mrs. Hailman and Mrs. Hilliard, Mrs. Benjamin Franklin Jones, Jr., Miss Alice Blaine Robinson, Mrs. James Stuart Brown, Mrs. George Breed Gordon, Mrs. William Larimer Jones, Mrs. Richard Beatty Mellon, and Mrs. William H. Mercur. The club, which now has a limited membership of one hundred, is contemplating the extension of the same. Owing to the approaching holidays there will be no more sessions until January.

#### HORTICULTURAL SOCIETY OF WESTERN PENNSYLVANIA.

The new Horticultural Society of Western Pennsylvania met for its first regular semi-monthly session on Wednesday evening, December 1, in the East Liberty Branch of Carnegie Library. Superintendent William Allen of the Homewood Cemetery, the first vice-president, reported a representative visit to the recent annual meeting of the Garden Club of Allegheny County, resulting in the accession of sixteen associate members from the latter to the new organization at five dollars per member, this list promising to be shortly extended. Thomas Edward Tyler, the secretary, who is in charge of the orchid houses of Charles D. Armstrong, had an interesting display of cypropediums in variety. This was supplemented by a talk on the culture of orchids. Tyler's exhibition included some fine types of Sanderea, to which he devotes one house, and two specimens of hybrid cattleyas. Huyler, the chrysanthemum grower for the Phipps Conservatory, West Park, North Side, contributed a display of twelve late varieties, single and pompons. In connection with this he mentioned that the single varieties were usually pinched too late in the season, thus precluding the desired long stems.

The meeting was also devoted to a display of decorative Christmas plants and a talk on Christmas decorations by one of the leading down-town florists. The first session of 1916—January 5 -will include a discussion on the advisability of holding the first

annual chrysanthemum show next autumn.

#### PENNSYLVANIA STATE HORTICULTURAL ASSOCIATION.

The annual meeting of the State Horticultural Association of Pennsylvania will be held at Reading, Pa., on January 18, 19 and 20. An interesting program will be mailed out the latter part of December. Phases of fruit and vegetable growing of interest to all horticulturists and farmers will be taken up by lecturers. Discussions will follow by growers and members of the association. An interesting feature of the meeting will be the question box which will be opened at each session, and the discussion led by one of Pennsylvania's prominent growers.

F. N. FAGAN.

Assistant Secretary, State College, Pennsylvania.

#### MASSACHUSETTS HORTICULTURAL SOCIETY.

A meeting of the Board of Trustees of the Massachusetts Horticultural Society was held on Saturday, December 4.

The special committee on the award of the George Robert White Medal of Honor for the year 1915 reported the name of Ernest Henry Wilson.

The following standing committees of the society for the en-

suing year were appointed:
Finance—Walter Hunnewell, chairman; Arthur F. Estabrook, Stephen M. Weld.

Membership R. M. Saltonstall, chairman; Thomas Allen, Thomas Roland.

Prizes and Exhibitions-James Wheeler, chairman; John K. M. L. Farquhar, Duncan Finlayson, T. D. Hatfield, A. H. Wingett. Plants and Flowers-William Anderson, chairman; Arthur H.

Fewkes, S. J. Goddard, Donald McKenzie, William Sim. Fruits-Edward B. Wilder, chairman; William Downs, Ralph

Vegetables-John L. Smith, chairman; Henry M. Howard, William C. Rust.

Gardens-Richard M. Saltonstall, chairman; David R. Craig, Jackson T. Dawson, William Nicholson, Charles Sander.

Library—Charles S. Sargent, chairman; Ernest B. Dane, Nathaniel T. Kidder.

Lectures-Wilfrid Wheeler, chairman; John K. M. L. Farquhar,

F. C. Sears, Fred A. Wilson. Children's Gardens-Henry S. Adams, chairman; Wm. N. Craig,

Dr. Harris Kennedy, Mrs. W. Rodman Peabody, Miss Margaret A. WM. P. RICH, Secretary.

<sup>\*</sup>Read before convention National Association of Gardeners, Boston, December 9.

#### **NATIONAL ASSOCIATIONS**

National Association of Gardeners. M. C. Ebel, secretary, Madison, N. J.

Society of American Florists and Ornamental Horticulturists.

John Young, secretary, 54 West 28th st., N. Y.

American Carnation Society. A. F. J. Bauer, secretary, Indianapolis, Ind.

American Dahlia Society. Joseph J. Lane, secretary, 11 West 32d st., N. Y.

American Gladiolus Society. Henry Yonell, secretary, Syracuse, N. Y

American Peony Society. A. B. Saunders, secretary, Clinton, N. Y.

American Rose Society. B. Hammond, secretary, Fishkill, N. Y.

American Sweet Pea Society. H. A. Bunyard, secretary, 40 West 28th st., N. Y.

Chrysanthemum Society of America. Charles W. Johnson, secretary, Morgan Park, Ill.

Women's National Agricultural and Horticultural Association.

Miss Margaret Jackson, secretary, Englewood, N. J.

#### LOCAL SOCIETIES

Bernardsville Horticultural Society.

W. G. Carter, secretary, Bernardsville, N. J. Commerce Rooms. First Monday every month, Horticultural Hall, 7:30 p. m., Bernardsville, N. J.

Boston Gardeners' and Florists' Club. William N. Craig, secretary, Brookline, Mass.

Third Tuesday every month, Horticultur-al Hall, Boston, Mass., 8 p. m.

Cleveland Florists' Club.

Frank A. Friedley, secretary, 95 Shaw avenue, East Cleveland, Ohio. Second Monday every month, Hollenden Hotel, Cleveland, Ohio.

Cincinnati Florists' Society.

Alex. Ostendorp, secretary. Cincinnati, Ohio.
Second Wednesday every month, Jabez Elliott Flower Market.

Connecticut Horticultural Society. Alfred Dixon, secretary, Wethersfield, Conn. Second and fourth Fridays every month, County Building, Hartford, Conn., 8 p. m.

Detroit Florists' Club.
R. H. Wells, secretary, 827 Canfield avenue,
Detroit, Mich.

Third Monday every month, Bemb Floral

Dobbs Ferry Gardeners' Association. B. Harms, secretary, Dobbs Ferry, N. Y. Last Saturday every month.

Dutchess County Horticultural Society. Herbert G. Cottan, secretary, Wappinger Falls, N. Y.

May and June, Poughkeepsie, N. Y.

Elberon Horticultural Society.

George Masson, secretary, Oakhurst, N. J. First Monday every month, Fire Hall, Elberon, N. J., 8 p. m.

Essex County Florists' Club. John Crossley, secretary, 37 Belleville avenue, Newark, N. J.

Third Thursday every month, Kreuger Auditorium.

Florists' and Gardeners' Club of Holyoke and Northampton, Mass.

James Whiting, secretary, Amherst, Mass Second Tuesday every month.

Florists' and Gardeners' Club of Rhode Island.

William E. Chapell, secretary, 333 Branch avenue, Providence, R. I. Fourth Monday each month, Swartz Hall.

Gardeners' and Florists' Club of Baltimore. N. F. Flittin, secretary, Gwynn Falls Park, Sta. F, Baltimore, Md.

Second and fourth Monday every month. Florist Exchange Hall.

Gardeners and Florists of Ontario. Geo. Douglas, secretary, 189 Merton street, Toronto, Canada.

Third Tuesday every month, St. George's Hall.

The Horticultural Society of New York. Geo. V. Nash, secretary, Bronx Park, New York Čity.

Monthly, irregular, May to October, New York Botanical Garden, Bronx Park, New York. November to April, American Museum of Natural History, 77th st. and Columbus ave., New York.

Houston Florists' Club.

A. L. Perring, secretary, 4301 Fannin street, Houston, Texas.

Meets first and third Monday, Chamber of

Lake Geneva Gardeners' and Foremen's Association.

Raymond Niles, secretary, Lake Geneva, Wis.

First and third Tuesday every month, Oct. to April; first Tuesday every month, May to Sept., Horticultural Hall.

Lenox Horticultural Society.

John Carman, secretary, Lenox, Mass. Second Wednesday every month.

Los Angeles County Horticultural Society. Hal, S. Kruckeberg, secretary, Los Angeles. Cal.

First Tuesday every month.

Massachusetts Horticultural Society. William P. Rich, secretary, 300 Massachusetts avenue, Boston, Mass.

Menlo Park Horticultural Society. Percy Ellings, secretary, Menlo Park, Cal. Second Thursday each month.

Minnesota State Florists' Association. Gust, Malmquist, secretary, Fair Oaks. Minneapolis, Minn.

Third Tuesday every month.

Monmouth County Horticultural Society. Harry Kettle, secretary, Fairhaven, N. J. Fourth Friday every month, Red Bank.

Montreal Gardeners' and Florists' Club. Second Wednesday every month except W. H. Horobin, secretary, 283 Marquette st. First Monday every month.

Morris County Florists' and Gardeners' Society.

Edward J. Reagan, secretary, Morristown, N. J.

Second Wednesday every month, except July and August, 8 p. m., Madison, N. J.

Nassau County Horticultural Society. Harry Jones, secretary, Glen Cove, N. Y. Second Wednesday every month, Pembroke Hall, 7 p. m.

New Bedford Horticultural Society. Jeremiah M. Taber, secretary, New Bedford, Mass.

First Monday every month.

New Jersey Floricultural Society. Geo. W. Strange, secretary, 216 Main street,
Orange, N. J.

First Monday every month, Jr. O. W. A. M. Hall., 8 p. m.

New London Horticultural Society. John Humphrey, secretary, New London, Conn.

Second Thursday every month, Municipal

New Orleans Horticultural Society. C. R. Panter, secretary, 2320 Calhoun street, New Orleans, La.

Third Thursday every month, Association of Commerce Bldg.

Newport Horticultural Society. Wm. Gray, secretary, Newport, R. I. Second and fourth Tuesday every month.

New York Florist Club. John Young, secretary, 54 W. 28th street, New York.

Second Monday every month, Grand Opera

North Shore Horticultural Society. Leon W. Carter, secretary, Manchester, Mass.

First and third Fridays every month.

North Shore Horticultural Society. E. Bollinger, secretary, Lake Forest, Ill. First Friday every month, City Hall.

North Westchester County Horticultural and Agricultural Society.

M. J. O'Brien, secretary, Mt. Kisco, N. Y.
Third Thursday every month, except June
to August, at 8 p. m.; December to February, 3 p. m.

Oyster Bay Horticultural Society. A. R. Kennedy, secretary, Westbury, L. I. Fourth Wednesday every month, Oyster Bay, N. Y., 7:30 p. m.

Pacific Coast Horticultural Society. W. A. Hofinghoff, secretary, 432 Phelan Bldg., San Francisco, Cal.

First Saturday every month, Redmen's Bldg.

Pasadena Horticultural Society. Geo. B. Kennedy, secretary, Pasadena, Cal. First and fourth Friday every month.

Paterson Floricultural Society. Richard Buys, Secretary, Paterson, N. J. First Tuesday every month, Y. M. C. A. Bldg., 8 p. m.

Pennsylvania Horticultural Society. David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

Third Tuesday every month, Horticultural Hall, 8 p. m.

People's Park Cottage Gardeners' Association.

John Ainscough, secretary, 4 Chestnut st.,
Paterson, N. J.

First and last Friday every month, Working Man's Institute, Paterson, N. J.

Philadelphia Florists' Club. David Rust, secretary, Broad and Locust sts., Philadelphia, Pa.

First Tuesday every month, Horticultural Hall, 8 p. m.

The Pittsburgh Florists' and Gardeners' Club.

H. P. Joslin, secretary, Ben Avon, Pa.

Redlanrs (Cal.) Gardeners' Association. Jas. McLaren, secretary, Box 31 R. F. D. No. 2, Redlands, Cal.

Rhode Island Horticultural Society. E. K. Thomas, secretary, Box 180, Kingston, R. I.

Third Wednesday every month, Public Library, Providence, R. I.

Rochester Florists' Association.

11. R. Stringer, secretary, 47 Stone street,
Rochester, N. Y.

Second Monday every month, 95 Main street. East.

Shelter Island Horticultural and Agricultural Society.

First and third Thursdays every month.

Southampton Horticultural Society. Julius W. King, secretary, Southampton, N. Y.

First Thursday every month, Oddfellows

Tacoma Florists' Association.

F. H. Atchison, secretary, South 50th and East F street, Tacoma, Wash. Third Thursday, Maccabee Hall, 11th and C streets.

Tarrytown Horticultural Society. E. W. Neubrand, secretary, Tarrytown, N. Y. Last Tuesday every month, 7:30 p. m.

Texas State Horticultural Society G. H. Blackman, assistant secretary, College Station, Texas.

Tuxedo Horticultural Society. Thomas Wilson, secretary, Tuxedo Park, N. Y.

First Wednesday every month.

Washington, D. C., Florist Club. J. L. Mayberry, secretary, Washington, D. C.

First Monday every month.

Westchester and Fairfield Horticultural Society.

J. B. McArdle, secretary, Greenwich, Conn. Second Friday every month, Doran's Hall, Greenwich, 8 p. m.

#### GARDEN CLUBS

International Garden Club. Mrs. Charles Frederick Hoffman, President. Club House, Bartow Mansion, Pelham Bay Mrs. Henry S. Munroe, secretary, 501 W. Park, New York City.

(Address all communications to Mrs. F Hammett, Asst. Sec'y, Bartow Mansion.)

The Garden Club of America. Mrs. J. Willis Martin, president, 1721 Locust Miss Sarah W. Hendrie, secretary, Grosse street, Philadelphia, Pa.

Pointe Farms, Mich.

The Garden Club of Alma, Mich. Mrs. E. J. Lamb, secretary, 803 State street. Twice a month at members' residences.

The Garden Club of Alleghany County, Pa. Mrs. F. H. Denny, president, Sewickley, Pa.

Amateur Garden Club of Baltimore, Md. Miss Sarah S. Manly, secretary, The Walbert.

The Garden Club of Ann Arbor, Mich. First Tuesday every month, Fort Pitt Miss Annie Condon, secretary, 920 University avenue.

> The Garden Club of Somerset Hills, N. J. Mrs. Geo. R. Mosle, secretary, Gladstone, N. J.

Second and fourth Thursdays, middle of April to November. August excepted.

The Garden Club of Cleveland, Ohio. Mrs. Geo. Scoville, secretary, 1453 E. Boulevard.

Garden Club of East Hampton, L. I. Mrs. F. K. Holister, secretary, East Hampton, N. Y.

The Park Garden Club, of Flushing, N. Y.

Mrs. John W. Paris, president,
Flushing, N. Y.

Second and fourth Mondays, members'

homes.

The Garden Club of Greenwich, Conn. Mrs. Frederick Gotthold, secretary, Cos Cob, Conn.

At members' residences.

The Garden Club of Harford County, Pa. Mrs. Martin E. Ridgley, secretary, Benson P. O., Md.
First and third Thursdays, April to

December at members' residences.

The Gardeners of Mont. and Dela. Counties, Pa.

Miss Elizabeth D. Williams, secretary, Haverford, Pa.

At members' residences.

The Weeders' Club, Pa. Miss Ellen Winsor, secretary, Haverford, Pa.

First and third Wednesday at members' residences.

The Garden Club of Lake Forest, Ill. Mrs. Tiffany Blake, president, Lake Forest, Îll.

The Larchmont Garden Club, N. Y. Mrs. Edgar Park, secretary, Larchmont, N. Y. First Thursdays.

The Garden Club of Lawrence, L. I. Mrs. Thomas Lawrence, secretary, Lawrence, L. I.

The Garden Club of Lenox, Mass. Mrs. Francis C. Barlow, secretary, 47 E. 64th street, New York.

First and third Mondays, June to October at Lenox.

Lewiston and Auburn Gardeners' Union. Mrs. George A. Whitney, secretary, Auburn, Me.

The Garden Club of Litchfield, Conn. 120th street, New York.

Second Friday, June to October at Litchfield.

The Garden Club of Michigan.

At members' homes. Two Spring and one Fall Shows.

The Millbrook Garden Club, N. Y. Mrs. Keyes Winter, secretary, 125 E. 78th street, New York. Meet at Millbrook, Dutchess County, N. Y.

The Bedford Garden Club, N. Y. Mrs. Benjamin W. Morris, secretary, Mt. Kisco, N. Y.

The Garden Club of New Canaan, Conn. Mrs. Francis H. Adriance, secretary, New Canaan, Conn. Second Wednesday each month.

The Newport Garden Association, R. I. Miss Dorothea G. Watts, secretary, Newport, R. I.

Annual Meeting, August. Others called. Five monthly summer shows. Others when

The Newport Garden Club.

Mrs. Chas. F. Hoffman, president, 620 Fifth avenue, New York.

The Garden Club of New Rochelle, N. Y. Mrs. Lucius W. Hitchcock, corresponding secretary, Premma Point Park. Members residences and Public Library. Shows monthly, May to November.

The Garden Club of Norfolk, Conn. Philemon W. Johnson, secretary, Norfolk, Conn.

Second Wednesday each month at Public

North Country Garden Club of Long Island. Mrs. Edward Townsend, secretary, Oyster Bay, L. I.

Garden Club of Philadelphia, Pa. Miss Ernestine A. Goodman, secretary, Chestnut Hill.

The Garden Club. Mrs. Aubrey Pearre, Jr., secretary, Pikesville. Md.

The Garden Club of Princeton, N. J.
Mrs. Junius Spencer Morgan, secretary,
Constitution Hill, Princeton, N. J.

The Garden Club of Ridgefield, Conn. Mrs. Cass Gilbert, secretary, 42 E. 64th street, New York.

Twice monthly at Ridgefield. Also ex-

The Ridgewood Garden Club, N. J. E. T. Sowter, secretary, Ridgewood, N. J.

Rumsen (N. J.) Garden Club. Miss Alice Kneeland, secretary Rumson, N. J.

The Hardy Garden Club of Ruxton, Md. Mrs. R. E. L. George, secretary, Ruxton, Md.

The Garden Club of Rye, N. Y.

Mrs. Samuel Fuller, secretary, Rye, N. Y.

First Tuesdays, April to October. Also special meetings and Flower Shows.

The Shedowa Garden Club, New York. Miss Mary Young, secretary, Garden City, N. Y.

Second Wednesday each month at mem-ers' residences. Vegetable and flower bers' residences. shows, June and September. Correspondence with other clubs invited.

### Shorburn's Bulb Catalogue



Send for your copy. Our bulbs are fullsize, true to name and very beautiful.

We have a really wonderful assortment of 66 of our

choicest bulbs for \$1.00. You may send a dollar bill, pinned to your order, at our risk.

To those who love flowers and "growing things," as all gardeners do, our Bulb Catalogue will be a revelation. Send for it today.

#### J. M. Thorburn & Co.

53C Barclay Street, through to 54 Park Place, New York



Mrs. C. H. Stout, secretary, Short Hills, N. J. Monthly at Short Hills Club House during January and February.

The Southampton Garden Club, New York. Mrs. Albert Boardman, president, 40 W. 33rd street, New York.

Twice a month in summer at Southamp ton, L. I.

The Staten Island Garden Club, N. Y. Mrs. J. Harry Alexander, secretary, Rose bank, S. I.

Twice a month. At members' homes. Winnetka, Ill.

The Garden Club of Trenton, N. J. Miss Anne MacIlvaine, secretary, Trenton, N. J.

Bi-monthly meetings at members' resi-

The Garden Club of Illinois. Mrs. William G. Hibbard, Jr., secretary, Winnetke, Ill.

The Garden Club of Orange and Dutchess County, New York.

Mrs. Morris Rutherford, secretary, Warrick, Orange County, N. Y.

Warrenton Garden Club, Virginia. Mrs. C. Shirley Carter, secretary, Warrenton, Va.

Garden Club, Webster Groves, Mo. Caroline Chamberlin, sec'y., 106 Plant Ave.

#### HORTICULTURAL EVENTS

Fourth National Flower Show, under the auspices of the Society of American Florists and Ornamental Horticulturists, Philadelphia, Pa., March 25 to April 2, 1916.

International Flower Show, Grand Central Palace, New York, April 5-12, 1916.

vention, Boston, December 9-10, 1915.

#### MENLO PARK (CAL.) SHOW.

The annual fall flower show of the Menlo Park Horticultural Society, held in the public school, Menlo, was described by everyone who saw it as the best ever held by the society. In every respect it was much better than the flower show held at the Horticultural Palace, P. P. I. E., San Francisco, the previous week.

W. Johnson, secretary of the Chrysanthemum Society of America, who was one of the judges at our show, in conversation with the writer, after judging, said it was a wonderful show.

Competition was very keen, and the quality of the flowers and plants could not be beaten.

Silver cups and cash prizes were donated to the society by the following trade firms: C. C. Morse, San Francisco; Halliwell's Seed Store, San Francisco; F. R. Mills, florist, Palo Alto: Lynch Nursery Company, Menlo Park; H. L. Goerteyhain, Redwood City; F. Park; H. L. Goerteynam, Redwood City; P. Pellicano, San Francisco; Arthur T. Boddington, New York; Aphine Manufacturing Company, Madison, N. J.: Lord & Burnham Company, New York; Henry A. Dreer, Philadelphia; Shreeve, Treat & Eacret, San Francisco; Hawaiian Fertilizer Company, San Francisco.

In the open to all classes the Lynch Nursery Company were the principal winners, getting 13 first, 6 seconds and the soelety silver cup. F. R. Mills, 8 firsts, 3 seconds. H. L. Goerteyhain, 1 first, 2 seconds.

Private gardeners only, D. Bassett was the largest winner, with 9 firsts and 3 seconds. The Aphine Manufacturing Company, silver vase for the most meritorious exhibit by a member of the N. A. A. The Henry A. by a member of the 8, A, A. The tierry A. Dreer cup for the best 24 blooms chrysanthemums, the N. G. A. medal for the best 12 chrysanthemums, Lord & Burnham's prize for decorative and foliage plants, and the Shreeve, Treat & Eacret cup for best table of orchids. Mr. Basset is gardener for Mr. L. Stern, a gentleman who takes a great pride and interest in his garden and greenhouses. Mr. G. Munn, gardener for Mr. Sigmund Stern, won the Halliwell cup for the best collection of vegetables and several other prizes for separate dishes of vegetables and chrysanthemum classes.

Mr. D. Patterson, gardener for C. W. Smith, with 4 firsts and 3 seconds, was a successful exhibitor, winning first for the largest bloom in the show with a wonderful bloom of Wm. Turner.

Mr. W. Kettlewell, gardener for G. Pope, won the C. C. Morse Company's special prize for best 12 dishes of vegetables and 4 other firsts for separate dishes of vegetables.

Mr. J. M. Daly, gardener for J. Leroy Nickel, swept the boards in the fruit classes. His greenhouse grown grapes were very fine. Mr. Daly also won first for best 12 vases single chrysanthemums out of 10 entries and first for best 50 blooms of double tuberous begonias.

Mr. A. McDonald, gardener for the San Mateo Commission, P. P. I. E., was a successful winner in the plant classes, winning 4 firsts with ferns, chrysanthemums and flowering plants.

Other principal winners were Mr. D. W. Slade, gardener for S. M. Spaulding; D. Tuttle, gardener for Mrs. Heller; H. Wright, gardener for Mrs. Oyster: C. Ehrlich, gardener for Mr. G. Roos; E. Carter, gardener for Mr. Walters; H. Homewood, gardener for F. W. McNear; C. Lampard, gardener for J. A. Donahoe.

The judges were: S. Clark, Mayfield; T. National Association of Gardeners, constitution, Boston, December 9-10, 1915.

Sandifortt, San Rafael; H. Platt, San Francisco; E. James Elmhurst and C. W. Johnson, Chicago.

PERCY ELLINGS, Secretary.

#### NOTICE.

Please inform us of any change of officers or meeting dates of your society, so that we may keep our directory of societies and clubs accurate. Send us the notes of the proceedings of your EDITOR. meetings regularly.



is under his direct supervision and he is always ready to advise, from his long experience, just what implement, spray material, etc., you need. Ask questions. But send for the book today.

B. G. PRATT COMPANY 50 Church St., New York

#### HARTFORD (CONN.) SHOW.

The officers and members of the Connecticut Horticultural Society were much pleased and gratified at the success attending their efforts to hold a Chrysanthemum Show. This show was held on Friday, November 12. When the Chairman of the committee in charge of the exhibition requested one member of that committee to endeavor to secure the old City Hall, for many years the historical State House (also known as the famous Bulfinch Building), he entertained little hope of having his ambition gratified; and when he announced that he had met with success and that the Chrysanthemum Show was to be held in this grand old building, every member of the society was greatly and pleasantly surprised. The hallway and the stairway on each side were beautifully decorated with palms and 'mums, of all kinds and sizes, groups of pompons and a very attractive exhibit of seedlings of anemone flowered 'mums of special merit. The private gardeners and growers very kindly contributed to the success of the show by bringing the best they had, and the committee wishes to thank the exhibitors through the columns of the Chronicle for their whole-hearted response to make the show the best ever given by the society. It is conservatively estimated that some 10,000 visitors viewed the exhibition on the above date. There were no premiums offered at this show, although a number of diplomas were awarded by the judges appointed to pass on the merits of the exhibits. The society is proud that it was the first organization in this city to demonstrate for what purposes the old City Hall could be used for the entire benefit of the citizens of Hartford.

John F. Huss, superintendent of the James J. Goodwin Estate, was awarded a first-class certificate for specimen plants. He exhibited three large vases of white, yellow and pink 'mums in the mayor's reception room for which a certificate of merit was awarded. A first-class certificate was also awarded his collection of potted plants and

potted pompons.

Alfred Cebelius, gardener for Professor Melanthon W. Jacobus, received a first-class certificate for specimen plant. This plant of R. F. Felton, yellow, attracted a great deal of attention, bearing some 300 blooms. Other plants exhibited by him were Dr. Enguehard, containing some 150 pink blooms, and Lady Lydia, white, the plant being trained fan shape. A striking novelty shown by Mr. Cebelius was the Reine Du Japan, a peculiar white bloom with petals like pine needles. He also staged vases of Ophelia, Mrs. Aaron Ward, Mrs. Charles Russel, Hadley and Radiance roses, for which he was awarded a first-class certificate.

Fred Boss, gardener at Elizabeth Park was awarded a first-class certificate for cut blooms, and also for potted plants. The south side of the lobby was beautifully decorated by the Park Department, for

which Hartford is famous.

The palms and ferns displayed by A. N. Pierson, Inc., of Cromwell, were rare specimens for size and perfection in growth, and gave the general outline of the exhibition a finishing touch that could not be surpassed by anything else. A table of cut roses came in for their share of praise, especially the new "Red Radiance" rose, which is very similar in color to American Beauty. Both these exhibits were awarded first-class certificates by the judges.

George H. Hale, gardener for W. E. Sessions of Bristol, was awarded a first-class certificate for seedlings of anemone flowered mums of special merit. This exhibit created quite a discussion among some of

## Plant for Immediate Effect Not for Future Generations

START with the largest stock that can be secured! It takes over twenty years to grow many of the Trees and Shrubs we offer.

We do the long waiting—thus enabling you to secure trees and shrubs that give immediate results. Price List now ready.

ANDORRA NURSERIES
Win. Warner Harper Proprietor

Chestnut Hill, Phila, Box O. Pa.

The

DORRA

Was

#### The Highway to Perennials Leads Straight to the Palisades Nurseries

#### FOR OLD FASHION GARDENS AND HARDY BORDERS

There you will find all kinds and you can take your pick from the best that grow. Perennials and a feeling of permanency to your home surroundings. They change their plumage but not their face, and keep reflecting the seasons all the year around.

Our motto-Maximum quality at Minimum Cost.

Write R. W. CLUCAS,

THE PALISADES NURSERY, Sparkhill, N. Y.

the visitors, as they were completely at a loss to name it. He also received a certificate of merit for cut blooms.

Warren S. Mason, superintendent of the A. A. Pope Estate, Farmington, was awarded a certificate of merit for general display.

The chrysanthemum display of Elmer D. Smith, of Adrian, Mich., was awarded a

first-class certificate.

The staging of the various exhibits was under the direction of G. H. Hollister, superintendent of Keney Park. Mr. Edward A. Brassill, manager for W. W. Hunt & Co., was chairman of the committee in charge of the exhibition, and through his untiring efforts the show was a grand success.

ALFRED DIXON, Secretary.

Wethersfield, Conn.

#### OYSTER BAY HORTICULTURAL SOCIETY.

The regular monthly meeting of the Oyster Bay Horticultural Society was held in Fireman's Hall, Oyster Bay, on November 24, 1915.

Mr. John Sorosick reported the "'mum"

show a great success.

Mr. John T. Ingram reported the lecture given by Dr. Felt at the Oyster Bay High School recently a great success.

The following were elected to active membership: Messrs. Geo. Wilson, Geo. Walker, Charles Moulti, Charles Valentine, Charles

Young and William Ritchie.

The exhibition tables were well filled, and prominent among the exhibits was Mr. Robinson's collection of vegetables, of which there were twenty-nine varieties. The following were appointed Judges: Messrs. Milburn, Gale and Hothersall and reported as follows: 3 heads lettuce, Joseph Robinson, society's prize: 50 violets, Prince of Wales, George Wilson, society's prize; seedling chrysanthemum, J. Bell, certificate of merit: collection of vegetables, J. Robinson, cultural certificate.

Mr. James Bell gave an interesting talk on his new type of 'mum to' be known as the Cactus type.

A lecture on "Hickory Bark Beetles," etc., was given by Mr. J. J. De Vyver. Exhibits for next meeting are 1 pot

Exhibits for next meeting are 1 pot primula, 1 pot schizanthus, 12 mushrooms.

A. R. KENNEDY, Secretary.

#### ROSE AND Show

Country Life
Permanent Exposition
GRAND CENTRAL TERMINAL
BUILDING, NEW YORK CITY

February 9-10-11, 1916

Watch for schedule of prizes in the January number of the Gardeners' Chronicle. For further particulars apply to Robert Sexton, Country Life Permanent Exposition, Grand Central Terminal Building, New York.

# SUBSTITUTE OF STATES OF ST

SAN DIEGO SAN FRANCISCO

And our new 1916 Catalog has complete listings and prices of the winners. Some of them limited, so get the catalog at once and make your reservations.

Swas-Teeka Brand Cannas

THE CONARD & JONES CO. West Grove, Pa.

#### <del>ዸ፝ዺዺዺኯ ዺዺዺዺዺዺዺዺ</del>



#### G. D. TILLEY

Naturalist

"Everything in the Bird Line from a Canary to an Ostrich"

Birds for the House and Porch Birds for the Ornamental Waterway Birds for the Garden. Pool and Aviary Birds for the Game Preserve and Park

I am the oldest established and largest exclusive dealer in land and water birds in America and have on hand the most extensive stock in the United States.

G. D. TILLEY, Naturalist, Box 10, Darien, Conn.

#### NEW LONDON HORTICULTURAL SOCIETY.

New London Horticultural Society held its annual election of officers for the coming year Thursday, December 9, in the Municipal Building, State street. After the reading of the minutes by Secretary John Humphrey the retiring president, Alfred Flowers, then appointed S. L. Ewald, Edward Smith and John Maloney a nominat. ing committee, to appoint new officers These gentlemen retired for a brief session and appointed as follows: For president. Donald Miller; first vice-president, Gustav Newmann; second vice-president, Ernest Robinson; treasurer, S. L. Ewald; financial secretary, W. J. Morgan. Secretary John Humphrey did not wish for re-election, as his duties in connection with city affairs keep him going that he asked to be relieved of the office. Stanley Jordan was appointed in his place.

The society now has a membership of 125 members and a balance of \$150 in the treasury, which is very gratifying to the mem-

bers in general.

Rising votes of thanks was given Alfred Flowers for his untiring efforts as president during the past year. Mr. John Humphrey also for his seven years' service as secre-Both gentlemen very feelingly retarv. sponded.

STANLEY JORDAN, Secretary.

#### NASSAU CO. (N. Y.) HORTICULTURAL SOCIETY.

The regular monthly meeting of the Nassau County Horticultural Society was held in Pembroke Hall, Glen Cove, December 8, at 2 p. m. President Westlake in the chair. Mr. George Wilson, of Jericho, was elected to active membership. The president appointed as judges of the exhibits Messrs. James Holloway, George Wilson and James McCarthy, and they made the following awards: For the best plant of Gloire de Lorraine, 1st, Frederick Hitchman; for the best vase of carnations, 1st, Robert Jones. Mr. Jones also exhibited a splendid vase of chrysanthemums. Odessa, for which he was awarded a cultural certificate.

This being the annual meeting, Treasurer Ernest Brown read his financial report for the year just closed, showing that the society is in a first class condition financially. Mr. Brown received a very hearty vote of thanks from the society for the very efficient manner in which he carried out the

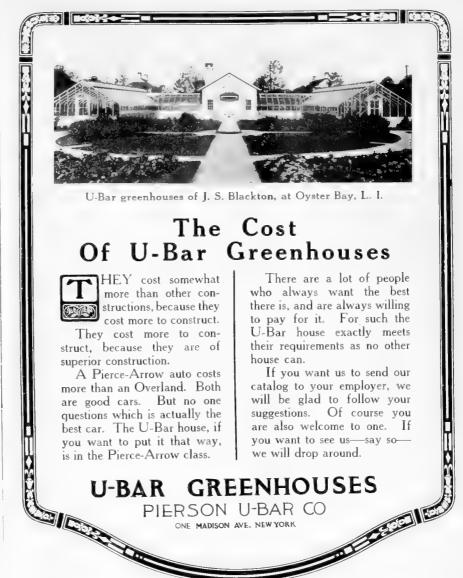
duties of his oflice.

The election of officers for the coming year now being in order, President Westlake, after cordially thanking his fellow members for the harmonious co-operation which he had received from them during his term of office, appointed Mr. James Duthie as chairman to conduct the election. The following officers were elected: President, McDonald; vice-president, Joseph Adler; treasurer, Ernest Brown; secretary Harry Jones; corresponding secretary, James McCarthy; trustee, Ernest Westlake. Executive Committee—Robert Jones, John Johnstone, Arthur Cook, James Gladstone. August Fournier, Walter McKinley and Thomas Twigg.

The newly elected officers were installed by Mr. Duthie, and Mr. McDonald then took the chair and conducted the remainder of the meeting. It was decided to hold our annual dinner on January 25, and a committee composed of Messrs. Ernest Brown. Joseph Adler and James Duthic was appointed by President McDonald to make

full arrangements for same.

JAMES M'CARTHY, Corresponding Secretary.



#### TURAL SOCIETY.

This society held its regular fortnightly meeting on December 2 in the Odd Fellows Hall. There was a good attendance of members, with the president, Mr. Mac-Laughlin, in the chair. The talk of the eve-ning was on "Sweet Peas Under Glass," when Mr. McLeod, superintendent to Mrs. Horace Russell, gave the members present some very interesting points on their culture. Mr. McLeod has proved to be a very skillful cultivator of these charming winter flowers. The next meeting will be held on December 16 at 8 p. m.

S. R. CANDLER.

#### TUXEDO (N. Y.) HORTICULTURAL SOCIETY.

The regular monthly meeting of the Tux-Millspaugh, Paterson, N. J.
do Hortfeultural Society was held in the Edward Vandercliff, gardener for the edo Horticultural Society was held in the Parish House, President Frederick Rake in the chair. A report was read in connection elected a member. with our recent show, which had been the most successful we have ever held. A hearty vote of thanks was extended to Mr. cially as well as from the point of view of Bentley as manager of the show. The nom-large number of exhibits. At our December ination of officers for 1916 took place, every meeting an election of officers will take office being contested. The members are place for the ensuing year. anxiously waiting the result of the ballot. The election will be held on January 5.

SOUTHAMPTON (N. Y.) HORTICUL- Next meeting will be held in the Fireman's Club. After the business meeting we will hold our annual bowling match and supper; it is what we generally call "the Tuxedo boys' night out."

THOMAS WILSON, Secretary

#### PATERSON FLORICULTURAL SOCIETY.

Mr. Robert Petrie received 80 points for cut blooms of chrysanthemums and 90 points for potted plants at our monthly competition for members with glass at our November meeting. The prizes are: Ist, gold medal; 2nd, silver medal; 3rd, bronze medal. Months open to members with glass, November and December, 1915, and January, February, March and April, 1916. members without glass, May, June, July, August, September and October, 1916.

Mr. Petrie is gardener for Mr. Daniel T.

Leonhard Estate of Haledon, N. J., was

Reports of our fall show held in September show that it was very successful finan-

SEBASTIAN HUBSCHMITT, JR.,

Every Free Guaranteed

Any That Fail Replaced

# Right Now You Will Enjoy Composing a Beautiful Grove of Pine and Fir

A little frost in the ground does not prevent planting evergreens. We transplant them practically all winter. Our large evergreens, with large balls of earth, are sure to succeed; in fact, we guarantee them absolutely. They have been previously root pruned and trans-planted. The balls are full of fibres and are held solidly together.

These big trees make beautiful and excellent screens and windbreaks. You don't have to wait five to ten years for them to grow to sufficient size to accomplish your purpose, as is the case with small evergreens

Remember, you take no risk when you buy Hicks Trees. We guarantee to replace any that fail to grow satisfactorily.

Send for New Catalog ergreens illustrated in color.

Are There Any Big Trees to Move in your vicinity? We can supply tree movers up to 20 tons capacity. Your men and teams can do the work.

Isaac Hicks & Son

Westburu . Long Island

#### Bird Homes for Xmas Gifts

Add beauty to your lawn or garden. Provide a home for the birds. A practical, appropriate Xmas gift.

#### Knock Down Houses Ready-Built Houses

We will send any of our artistic bird houses to address you may send us. We enclose your Xmas greet-Free Illustrated Book of ing. Bird Homes and Lawn Accesso-

E. E. EDMANSON & CO., 625 S. Norton Street, Chicago, Ill.

#### IMPORTED ORCHIDS

THE MODERN GLADIOLUS GROWER

Published monthly in the interests of both amateur and professional flower growers. 50c. per year-3 years for \$1.00

The Gladiolus as a flower has been wonderfully improved and is rapidly becoming the fashion. Important developments are looked for in the immediate future.

Madison Cooper, Publisher, Calcium, N. Y.

If you contemplate buying imported stock this year write to me. JOSEPH MANDA, Orchid Expert, Seedsman and Florist WEST ORANGE, N. J.

#### Chrysanthemums – Carnations—Roses

**NOVELTIES FOR 1915** 

If you did not receive our 1915 price list write us

Elmsford Nurseries—Scott Bros., Elmsford, N. Y. . Star espringungungungungungung na et et d. . . et et et sunt in et et et annan et annangungungungung magat sa

#### DODSON Feeding Shelters and Bird Houses Save Birds and Win Birds to Live Near You

Put out bird shelters now. Many birds stay north all winte you can attract them. Give shelter, food and water-save thirds—by getting the genuine Dodson Shelters and Houses.

Catch Sparrows Now
The Dodson Sparrow Trap—no other trap like this—will catch sparrows for you. Now is a good time to remove this enemy of native birds. Price, \$6 f. o. b. Chicago.

"Nature Neighbors"

A set of beautiful books about birds, written by authorities, illus-trated in color. John Burroughs iskingly good

Free folder showing bird in natural colors. Write for this and for the beautiful book telling how to win birds-both free.

JOSEPH H. DODSON, 732 South Harrison Ave., Kankakee, Ill.

Mr. Dodson is a Director of the Illinois Audubon Society

#### ORCHIDS

We are Specialists in Orchids, we collect, grow, import, export and sell orchids exclusively. If you are in the market for Orchids we solicit your inquiries and orders. Catalogues and special lists on application.

Lager & Hurrell, Orchid Growers and Importers, SUMMIT, N J.

#### COMPETENT GARDENERS

The comforts and products of a country home are increased by employing a competent gardener; if you want to engage one, write to us.

¶ Please give particulars regarding place and say whether married or single man is wanted. We have been supplying them for years to the best people everywhere. No fee asked.

#### PETER HENDERSON & CO.

Seedsmen and Florists

👼 наманичения принципримення принципримення на на принципри на на напринципри на напринципри на напринципр

35 and 37 Cortlandt St.

NEW YORK CITY

#### HILL'S EVERGREENS

Send for Price-list. Mention this magazine.

D. HILL NURSERY CO.

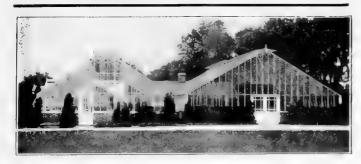
Evergreen Specialists, Largest Growers in America. Box 305 Dundee, Ill.



CAREFULLY SELECTED AND TESTED Send for Catalog Ready Dec. 26th J. J. WILSON SEED CO., INC., Newark, N. J.

#### DECLINA A OROMETORO DE MARIO. SEL MESTO ES TRA MUNIO. SEL SEL SEL MARIO DE DOCUMENTO DE MARIO MARIO MARIO MUNIO HARRY BALDWIN

Manufacturer of GREEN-HOUSE SHADING LATH ROLLER BLINDS MAMARONECK, N. Y. . Terangan manananan mananan mananan manakan mananan mananan mananan mananan mananan mananan mananan mananan manan



#### THE WISE COURSE

When contemplating the building of a Greenhouse, the wise course is to avoid extravagance and delay by hiring an organization which features economy and speed.

Our past is an open book, so is our present, and we invite you to investigate both.

PUT YOUR GREENHOUSE PROBLEMS UP TO US

We go anywhere in the U. S. to submit plans and prices

Metropolitan Material Co.

1396-1412 Metropolitan Ave., Brooklyn, N. Y.

#### "FXCELSIOR" RUST PROOF

#### Tree Guards

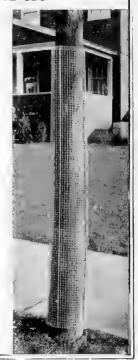
If a horse gets at one of your trees, even for a few minutes, the damage is done. Your loss is irreparable, yet it could have been prevented.

#### Don't Take Chances With Your Beautiful Trees

Excelsior Rust Proof Tree Guards give full protection and do not detract from the beauty of the trees. The Guards last many years, because heavy galvanizing prevents rust. There are several styles—select the one that suits. Write us for Catalog J of Excelsior Rust Proof Tree Guards, Bed Guards, Trellises and Fence.

WRIGHT WIRE COMPANY

Worcester, Mass.



# Bon Arbor Chemical Co.

e. a. at superior e programme de la companion de la companion de la companion de la companion de companion de companion de la companion del companion de la co

Manufacturers of

**BON ARBOR No. 1.** Soluble Plant Life. A most wonderful and invigorating food for all plants, indoor and outdoor.

BON ARBOR No. 2. Best dressing for your lawns.

RADIX WORM ERADICATOR. Instantly removes worms from your Tennis Courts, Putting greens, etc.

ANT DESTROYER. Will remove all ants outside or indoors in a week's time. Be sure and try it.

**NATURAL HUMUS.** Is the best for making new lawns, gardens, etc.

Write for descripive catalogue and prices



# When it comes to Greenhouses Come to

Hitchings of Company

General Offices and Factory-ELIZABETH, N. J.

NEW YORK 1170 Broadway BOSTON 40 Federal S

KEDYKEKEKEKEK

PHILADELPHIA 40 S. 15th St. Science is teaching that it is as essential to

#### PROTECT PLANT LIFE

from insect pests and the various fungi with which it is afflicted as it is to properly fertilize it. The importance of this to successful cultivation is becoming more and more evident as more is learned about the growth and habits of vegetation.



a concentrated liquid spraying material, readily soluble in water, is used at various strengths, according to directions on cans.

Aphine is equally effective in the house and garden; free from disagreeable odors of most insecticides, and practical for professional and amateur growers.

It is effective against green, black and white fly, thrips, soft scale, rose cabbage and currant slugs, and other soft bodied and sap-sucking insects. It can be applied to the tenderest foliage, flowers, fruits and vegetables.

Aphine will keep your plants (sweet pea vines, rose bushes,

etc., etc.) in the garden free from insects.

**Aphine** is used by prominent growers as a wash for decorative stock.

Gill, 25c.; half pint, 40c.; pint, 65c.; quart, \$1.00; gallon, \$2.50.

is an oil and sulphur composition—three in one, a scalicide, insecticide, and fungicide combined, composed of a high grade of petroleum, and the properties of the well known fungicide, Fungine. It is a most efficient winter spraying material for San Jose and other scale.

Use one part Scaline to twenty parts water.

As a summer spray for hardy trees, shrubs and plants it is an effective remedy against green, black and white fly, red spider, thrips, woolly aphis, cottony maple scale, tulip scale, mealy bug, and all soft scale. Use one part Scaline to forty to fifty parts water.

The sulphur contained in Scaline makes it an excellent preventive against various fungi at all

seasons of the year.

Scaline will rid your evergreens and shrubs of the red spider pest, which has done so much

havoc to them recently.

For summer spraying, Scaline is recognized as a marked improvement over the old-fashioned kerosene emulsion; more effective and more economical. It mixes readily with water, contains no sediment, and can be applied with the finest spray nozzle.

Quart, 75c.; gallon, \$1.50; 10 gallons, \$10.00.

is a concentrated sulphur composition, used as a spraying material, readily soluble in water, containing no sediment, and, unlike Bordeaux mixture, and lime and sulphur, does

not stain the foliage, but cleanses it.

It is an infallible remedy for mildew, rust and wilt, affecting flowers, fruits and vegetables, and is used with much success by leading growers on young stock as a preventive against various blights; also against bench fungi. One gallon makes 50 gallons spraying material.

Half pint, 30c.; pint, 50c.; quart, 75c.; gallon, \$2.00.

is a soil sterilizer and vermicide. Destroys cut, wire, eel and grub worms, maggots and root lice. Used one part to four hundred parts water, thoroughly soaking the

ground, it will protect your plants and lawns against ravages under the soil.

Gill, 25c.; half pint, 40c.; pints, 65c.; quart, \$1.00; gallon, \$3.00.

These products have the endorsement of leading commercial and private growers, and are generally recognized as standard remedies for the control of the insects and plant diseases for which they are recommended.

For sale by the leading seedsmen throughout the country. If not obtainable in your community, send us your order direct and we will have it shipped to you from our nearest agency.

## ohine Manufacturing Co. Agricultural Chemicals

GEO. A. BURNISTON

MADISON, NEW JERSEY

M. C. EBEL

# The three vital features of your Christmas Grafonola

For, of course, your new instrument will be a Columbia, if it is a question of musical quarty of certainty of lasting enjoyment. Judge the superiority of the Columbia Gratonola, first of all, upon its superb tone.

#### Tone:

The result of the state as the homodone, and the sense of the sense does, and the sense does, are the sense of the sense as a part to be represented in the process. The perfect tell reproduct and the annual tell following achievement in this branch of the art.

Once you realize the tone possibilities of the Columbia Grafonola, plaving Columbia Records or any other records, we believe you will never again be satisfied with any tone lessfull and true, less brilliant and round and natural.

#### Tone control:

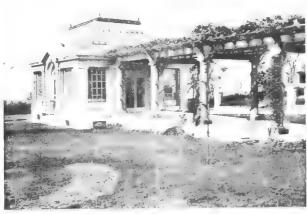
With the Columbia you have every possible gradation of tone at your command. The tone-control leaves, built on the one right principle of controlling tone-volume, and the wide variety of needles available, give you any and a blegrees of tone volume, from the lightest planissimo to the resounding fortissimo to fill the largest auditorium.

#### Convenience:

Your Grafonola, equipped with the individual record ejectors, an exclusive Columbia feature, is ideal in its convenience. Your records are racked individually in velvet-lined slots that automatically clean them and protect them against breaking and sorat rang. A numbered push button controls each record—a push of the button brings at y record forward to be taken etwer, it is a barbon of



COLUMBIA





#### The Glass Enclosed Gardens of a Prominent Society Leader

THOSE of you who have followed the blue ribbon winning of the Horse Shows, are familiar with this season's accomplishments of Miss Loula Long with her dashing tandem, Revelation and Hesitation. Located at Longview, her father's beautiful estate near Lee's Summit, Mo., are the training stables.

From here you catch a glimpse of the greenhouse containing seven separate glass gardens with flowers and fruits to supply both the country and town houses.

In pleasing harmony with the refined elegance of the Kansas City house, is a wistaria covered Pergola with a semiclassic palm garden at one end, and a plant garden with gracefully curved roof at the other.

From here come many of the palms and numerous foliage and flowering plants used so lavishly for their social functions.

It was our privilege to erect the glass gardens at both the town and country houses

Send for Two G's Booklet—Glass Gardens, A Peep Into Their Delights.



# Iord & Burnham Co.

NEW YORK

Boston Trem of Bll.

Bill., PHILADELPHIA Franchin Bon't 1.7., TORONTO R vol Bank, Bill.

CHICAGO R AGIV BI'L

ROCHESTER
Grunite Ellip
MONTREAL
Transportation Bldg.

CLEVELAND Shetland Bld.

Irvington, N. Y.

FACTORIES
Des Plaines, Ill.

St. Catharines, Canada

•			
			·
		•	

		•	
	,		·

NAME OF THE PARTY		4			
					11 - 17 - 27
	0.00				
WE .					
				•	
					X
					×.
					. 14
					4.00
	1 - 1	- H			
	•				
			,		
A-)					
•					
			•		
1.0					

						1,000
				A.		
	-					
						72 AV
						12-
4.9						
						- 1
			4			
					•	
					•	
						43
			•			
						1 3 M
	6					
		•				
116						
					and the state of t	and the same of th

3 5185 00253 5084

